

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Lowell A. Larson Examiner # 60608 Date: 3/14
 Art Unit: 3725 Phone Number 308-1873 Serial Number: 90/006,549
 Mail Box and Bldg/Room Location: CP2-11A14 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Folding System for Cutting Blade
 Inventors (please provide full names): Byung-Jin Song

Earliest Priority Filing Date: June 22, 1995

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Patent # 5,870,919 Litigation Search

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Solomon</u>	NA Sequence (#)	STN	
Searcher Phone #: <u>305-5932</u>	AA Sequence (#)	Dialog	
Searcher Location: <u>CP2, 2C08</u>	Structure (#)	<input checked="" type="checkbox"/> Questel/Orbit	
Date Searcher Picked Up: <u>3-14-03</u>	Bibliographic	Dr.Link	
Date Completed: <u>3-14-03</u>	Litigation	<input checked="" type="checkbox"/> Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time:	Other	Other (specify)	

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED
PATENT

5870919

February 16, 1999

Folding system for a cutting blade

CERT-CORRECTION: November 2, 1999 - a Certificate of Correction was issued for this patent

APPL-NO: 049391 (00)

FILED-DATE: March 27, 1998

GRANTED-DATE: February 16, 1999

PRIORITY: June 22, 1995 - 95-16975, South Korea (KR)

ENGLISH-ABST:

The present invention provides an unified folding system for processing in one work line all working processes needed in cutting and folding a cutting blade in a shape suitable to a sheet matter molding. A cutting blade supplied from a transferring unit of the cutting blade is cut in a length suitable to a sheet matter molding configuration in a cutting molding unit adjacent thereto, simultaneously the cutting tip used in cutting is transferred together with the cutting blade to a folding device side through a guide member set which is to be contacted with the cutting molding unit, the cutting blade transferred to the folding device is folded in a predetermined shape by a folding member which performs a going-straight movement and a rotating movement, and thereby, at this time, the cutting tip is detached outside by a tare. Accordingly, a working efficiency and a productivity in the cutting and folding of the cutting blade are improved and increased.

(C) QUESTEL 1994
QUESTEL.ORBIT (TM) 1998

Selected file: PLUSPAT

**** SS 1: Results 1**

1 / 1 *PLUSPAT - ©QUESTEL-ORBIT - image*
PN - US5870919 A 19990216 [US5870919]
TI - (A) Folding system for a cutting blade
PA - (A) SDS USA INC (US)
PA0 - SDS USA, Inc., Northvale NJ [US]
IN - (A) SONG BYUNG-JUN (KR)
AP - US4939198 19980327 [1998US-0049391]
FD - Cont. of US668379 19960621 [1996US-0668379]
Continuation of: US5787750
PR - KR9516975 19950622 [1995KR-0016975]
US4939198 19980327 [1998US-0049391]
US66837996 19960621 [1996US-0668379]
IC - (A) B21D-005/16
EC - B21D-007/022
B21D-037/20B
PCL - ORIGINAL (O) : 072294000; CROSS-REFERENCE (X) : 072307000
072319000
DT - Basic
CT - US-468301; US3286500; US3420279; US3581535; US3584660; US3823749;
US4718265; US5461893; US5463890; GB2116086
STG - (A) United States patent
AB - The present invention provides an unified folding system for processing in one work line all working processes needed in cutting and folding a cutting blade in a shape suitable to a sheet matter molding. A cutting blade supplied from a transferring unit of the cutting blade is cut in a length suitable to a sheet matter molding configuration in a cutting molding unit adjacent thereto, simultaneously the cutting tip used in cutting is transferred together with the cutting blade to a folding device side through a guide member set which is to be contacted with the cutting molding unit, the cutting blade transferred to the folding device is folded in a predetermined shape by a folding member which performs a going-straight movement and a rotating movement, and thereby, at this time, the cutting tip is detached outside by a tare. Accordingly, a working efficiency and a productivity in the cutting and folding of the cutting blade are improved and increased.

1 / 1 *LGST - ©LEGSTAT*
PN - US 5870919 [US5870919]
AP - US 49391/98 19980327 [1998US-0049391]
DT - US-P
ACT - 19980327 US/AE-A
APPLICATION DATA (PATENT)
US 49391/98 19980327 [1998US-0049391]

19981104 US/AS02
ASSIGNMENT OF ASSIGNOR'S INTEREST
SDS USA, INC. 151 WALNUT STREET NORTHLAKE, NEW JERSEY 07647 *
SONG, BYUNG-JUN : 19981102

19990216 US/A
PATENT

19991102 US/CC
CERTIFICATE OF CORRECTION
UP - 2000-08

1 / 1 CRXX - @CLAIMS/RRX
PN - 5,870,919 A 19990216 [US5870919]
PA - SDS USA Inc
ACT - 19991102 CERTIFICATE OF CORRECTION

Selected file: INPADOC

** SS 2: Results 12

1 / 12 INPADOC - @INPADOC
PN - DE 29624234 U1 20010510 [DE29624234]
TI - VORRICHTUNG ZUM BIEGEN EINER METALLISCHEN SCHNEIDKLINGE
PA - SONG BYUNG JUN [KR]
AP - DE 29624234/96-U 19960621 [1996DE-2024234]
PR - DE 19624830/96-IA 19960621 [1996DE-1024830]
KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-011/10

2 / 12 INPADOC - @INPADOC
PN - DE 19624830 C2 20010906 [DE19624830]
TI - VORRICHTUNG UND VERFAHREN ZUM BIEGEN EINER METALLISCHEN
SCHNEIDKLINGE
IN - SONG BYUNG-JUN [KR]
PA - SONG BYUNG JUN [KR]
AP - DE 19624830/96-A 19960621 [1996DE-1024830]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-011/10

1 / 1 LEGALI - @LEGSTAT
PN - DE 19624830 [DE19624830]
AP - DE 19624830/96 19960621 [1996DE-1024830]
DT - DE-P
ACTE - 19960621 DE/AE-A
DOMESTIC APPLICATION (PATENT APPLICATION)
DE 19624830/96 19960621 [1996DE-1024830]

19970102 DE/A1 [+]
LAYING OPEN FOR PUBLIC INSPECTION

19970612 DE/8110 [+]
REQUEST FOR EXAMINATION PARAGRAPH 44

19980122 DE/8125
CHANGE OF THE MAIN CLASSIFICATION
B21D 53/64

20010906 DE/D2 [+]
GRANT AFTER EXAMINATION

20020221 DE/8363 [-]
OPPOSITION AGAINST THE PATENT

UP - 2002-08

3 / 12 INPADOC - ©INPADOC
PN - DE 19624830 A1 19970102 [DE19624830]
TI - SCHNEIDKLINGEN-FALTSYSTEM
IN - SONG BYUNG JUN [KR]
PA - SONG BYUNG JUN [KR]
AP - DE 19624830/96-A 19960621 [1996DE-1024830]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B65H-045/18

1 / 1 LEGALI - ©LEGSTAT
PN - DE 19624830 [DE19624830]
AP - DE 19624830/96 19960621 [1996DE-1024830]
DT - DE-P
ACTE - 19960621 DE/AE-A
DOMESTIC APPLICATION (PATENT APPLICATION)
DE 19624830/96 19960621 [1996DE-1024830]

19970102 DE/A1 [+]
LAYING OPEN FOR PUBLIC INSPECTION

19970612 DE/8110 [+]
REQUEST FOR EXAMINATION PARAGRAPH 44

19980122 DE/8125
CHANGE OF THE MAIN CLASSIFICATION
B21D 53/64

20010906 DE/D2 [+]
GRANT AFTER EXAMINATION

20020221 DE/8363 [-]
OPPOSITION AGAINST THE PATENT

UP - 2002-08

4 / 12 INPADOC - ©INPADOC
PN - JP 9225534 A2 19970902 [JP09225534]
TI - BENDING SYSTEM OF CUTTING EDGE
IN - SOU HEISHIYUN
PA - SOU HEISHIYUN
AP - JP 163483/96-A 19960624 [1996JP-0163483]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-005/01; B26F-001/44

5 / 12 INPADOC - ©INPADOC
PN - JP 2760971 B2 19980604 [JP2760971]
IN - SO HEISHUN
PA - SO HEISHUN
AP - JP 163483/96-A 19960624 [1996JP-0163483]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-005/01; B21D-053/60; B26F-001/44

6 / 12 INPADOC - ©INPADOC

PN - KR 182069 B1 19990401 [KR-182069]
TI - BENT-UP SYSTEM OF CUTTING BLADE
IN - SONG BYUNG-JOON [KR]
PA - SONG BYUNG JOON [KR]
AP - KR 9516975/95-A 19950622 [1995KR-0016975]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-005/01

7 / 12 INPADOC - @INPADOC
PN - US 6128940 A 20001010 [US6128940]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SDS USA INC [US]
AP - US 247408/99-A 19990210 [1999US-0247408]
PR - US 247408/99-A 19990210 [1999US-0247408]
KR 9516975/95-A 19950622 [1995KR-0016975]
US 49391/98-A1 19980327 [1998US-0049391]
US 668379/96-A1 19960621 [1996US-0668379]
IC - B21D-005/16

1 / 1 LEGALI - @LEGSTAT
PN - US 6128940 [US6128940]
AP - US 247408/99 19990210 [1999US-0247408]
DT - US-P
ACTE - 19990210 US/AE-A
APPLICATION DATA (PATENT)
US 247408/99 19990210 [1999US-0247408]

20001010 US/A
PATENT
UP - 2000-44

8 / 12 INPADOC - @INPADOC
PN - US 2001045115 AA 20011129 [US20010045115]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SONG BYUNG-JUN [KR]
AP - US 575095/00-A 20000519 [2000US-0575095]
PR - US 575095/00-A 20000519 [2000US-0575095]
KR 9516975/95-A 19950622 [1995KR-0016975]
US 247408/99-A1 19990210 [1999US-0247408]
US 49391/98-A1 19980327 [1998US-0049391]
US 668379/96-A1 19960621 [1996US-0668379]
IC - B21D-043/28

1 / 1 LEGALI - @LEGSTAT
PN - US 2001045115 [US20010045115]
AP - US 575095/00 20000519 [2000US-0575095]
DT - US-P
ACTE - 20000519 US/AE-A
APPLICATION DATA (PATENT)
US 575095/00 20000519 [2000US-0575095]

20011129 US/A1A1
PATENT APPLICATION PUBLICATION (PRE-GRANT)

UP - 2001-51

9 / 12 *INPADOC - ©INPADOC*
PN - US 6405574 BB 20020618 [US6405574]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SDS USA INC [US]
AP - US 575095/00-A 20000519 [2000US-0575095]
PR - US 575095/00-A 20000519 [2000US-0575095]
KR 9516975/95-A 19950622 [1995KR-0016975]
US 247408/99-A1 19990210 [1999US-0247408]
US 49391/98-A1 19980327 [1998US-0049391]
US 668379/96-A1 19960621 [1996US-0668379]
IC - B21D-005/16

1 / 1 *LEGALI - ©LEGSTAT*
PN - US 6405574 [US6405574]
AP - US 575095/00 20000519 [2000US-0575095]
DT - US-P
ACTE - 20000519 US/AE-A
APPLICATION DATA (PATENT)
US 575095/00 20000519 [2000US-0575095]

20020618 US/BB
PATENT (PREVIOUS PRE-GRANT PUBLICATION)
UP - 2002-27

10 / 12 *INPADOC - ©INPADOC*
PN - US 2002152788 AA 20021024 [US20020152788]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SONG BYUNG-JUN [KR]
AP - US 172136/02-A 20020614 [2002US-0172136]
PR - US 172136/02-A 20020614 [2002US-0172136]
KR 9516975/95-A 19950622 [1995KR-0016975]
US 575095/00-A1 20000519 [2000US-0575095]
US 247408/99-A1 19990210 [1999US-0247408]
US 49391/98-A1 19980327 [1998US-0049391]
US 668379/96-A1 19960621 [1996US-0668379]
IC - B21D-043/28

1 / 1 *LEGALI - ©LEGSTAT*
PN - US 2002152788 [US20020152788]
AP - US 172136/02 20020614 [2002US-0172136]
DT - US-P
ACTE - 20020614 US/AE-A
APPLICATION DATA (PATENT)
US 172136/02 20020614 [2002US-0172136]

20021024 US/A1A1
PATENT APPLICATION PUBLICATION (PRE-GRANT)
UP - 2002-45

11 / 12 INPADOC - ©INPADOC
PN - US 5787750 A 19980804 [US5787750]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SONG BYUNG-JUN [KR]
AP - US 668379/96-A 19960621 [1996US-0668379]
PR - KR 9516975/95-A 19950622 [1995KR-0016975]
IC - B21D-005/16

1 / 1 LEGALI - ©LEGSTAT
PN - US 5787750 [US5787750]
AP - US 668379/96 19960621 [1996US-0668379]
DT - US-P
ACTE - 19960621 US/AE-A
APPLICATION DATA (PATENT)
US 668379/96 19960621 [1996US-0668379]

19980804 US/A
PATENT

19981104 US/AS02
ASSIGNMENT OF ASSIGNEE'S INTEREST
SDS USA, INC. 151 WALNUT STREET NORTHVALE, NEW JERSEY 07647 *
SONG, BYUNG-JUN : 19981102

19991116 US/CC
CERTIFICATE OF CORRECTION
UP - 2000-08

12 / 12 INPADOC - ©INPADOC
PN - US 5870919 A 19990216 [US5870919]
TI - FOLDING SYSTEM FOR A CUTTING BLADE
IN - SONG BYUNG-JUN [KR]
PA - SDS USA INC [US]
AP - US 49391/98-A 19980327 [1998US-0049391]
PR - US 49391/98-A 19980327 [1998US-0049391]
KR 9516975/95-A 19950622 [1995KR-0016975]
US 668379/96-A1 19960621 [1996US-0668379]
IC - B21D-005/16

1 / 1 LEGALI - ©LEGSTAT
PN - US 5870919 [US5870919]
AP - US 49391/98 19980327 [1998US-0049391]
DT - US-P
ACTE - 19980327 US/AE-A
APPLICATION DATA (PATENT)
US 49391/98 19980327 [1998US-0049391]

19981104 US/AS02
ASSIGNMENT OF ASSIGNEE'S INTEREST
SDS USA, INC. 151 WALNUT STREET NORTHVALE, NEW JERSEY 07647 *
SONG, BYUNG-JUN : 19981102

19990216 US/A
PATENT

19991102 US/CC

CERTIFICATE OF CORRECTION
UP - 2000-08

Session finished: 14 MAR 2003 Time 21:38:45

SDS USA, INC., Plaintiffs, v. KEN SPECIALTIES, INCORPORATED, Defendant.

Civ. No. 99-133

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

2002 U.S. Dist. LEXIS 16762

August 28, 2002, Decided

August 28, 2002, Original Filed

NOTICE:

[*1] NOT FOR PUBLICATION

PRIOR HISTORY:

SDS USA Inc. v. Ken Specialties Inc., 122 F. Supp. 2d 533, 2000 U.S. Dist. LEXIS 19038, 62 U.S.P.Q.2d (BNA) 1325 (D.N.J. 2000).

DISPOSITION:

Defendant Dale Kengott's motion to dismiss for lack of personal jurisdiction and alternatively, for summary judgment on liability under 35 U.S.C. § 271(a) and (b) was denied with respect to the motion to dismiss and the motion for summary judgment for liability under § 271(b); the motion for summary judgment for liability under § 271(a) was granted. Defendants' motion for this Court to reconsider its November 28, 2000 Opinion was denied. Plaintiff's motion to dismiss Defendant's First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1) was granted. Defendants' motion for summary judgment that U.S. Patent No. 5,870,919 invalid due to anticipation under 35 U.S.C. § 102 was denied. Defendants' motion for summary judgment on the issues of obviousness and best mode under 35 U.S.C. § 103, and 35 U.S.C. § 112, were respectively denied. Plaintiff's cross-motion for summary judgment dismissing Ken's Best Mode Defense was granted with respect to Claims 1-8, 10 and 11 and denied as to Claims 9 and 12. Plaintiff's motion for summary judgment dismissing Ken's counterclaims for "unfair competition" was granted. Defendants' motion to submit [*2] a supplemental memorandum and declaration in opposition to Plaintiff's motion for summary judgment on the issue of obviousness has been mooted.

CASE SUMMARY

PROCEDURAL POSTURE: In this patent infringement action, defendants, the alleged patent infringers, moved for summary judgment that the patent at issue was invalid due to anticipation under 35 U.S.C.S. § 102. The alleged infringers also moved for summary judgment on the issues of obviousness and best mode under 35 U.S.C.S. § § 103 and 112. Plaintiff patent holder cross-moved for summary judgment dismissing the infringers' best mode defense.

OVERVIEW: The court denied the infringers' motion for summary judgment finding that the patent was invalid for being anticipated. The court reasoned that although the infringers presented evidence of other claims in the patent being anticipated, even if one element of one claim was not anticipated, as had been demonstrated with regard to the "arcuate motion relative to said guide," then the infringers' anticipation defense failed, and the court need not examine the remaining claims. The infringers alleged a best mode violation in that the patent holder did not disclose its best mode for the "cutter." The holder cross-moved for summary judgment that it did not have a best mode at the time of filing. The court found that because claims 1-8, 10 and 11 did not claim a cutter which was unnecessary to carry out those claims, the holder was entitled to summary judgment on best mode defense with respect to them. As to Claims 9 and 12, the court denied both parties' motions for summary judgment because of the presence of genuine issues of material fact.

OUTCOME: The infringers' motion for summary judgment with regard anticipation was denied. The infringers' motion for summary judgment on the issues of obviousness and best mode was denied. The holder's

cross-motion for summary judgment dismissing the infringers' best mode defense was granted with respect to several claims and denied with respect to several claims.

LexisNexis(TM) HEADNOTES - Core Concepts

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN1] Pursuant to Fed. R. Civ. P. 4(e), federal district courts have personal jurisdiction over non-resident defendants to the extent authorized under the law of the forum state in which the district court sits.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN2] New Jersey's long arm statute provides for personal jurisdiction as far as is permitted by the Fourteenth Amendment. N.J. Ct. R. 4:4-4.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Constitutional Limits

[HN3] The question of whether a court has jurisdiction over a defendant is determined by federal constitutional law.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

Evidence > Procedural Considerations > Inferences & Presumptions

[HN4] The Fourteenth Amendment permits a state to exercise jurisdiction over an out-of-state defendant only where the defendant purposefully avails itself of the privilege of conducting activities within the forum state, thus invoking the benefits and protections of its laws. It is the burden of the plaintiff to prove that the defendant has purposefully availed himself of the forum state.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN5] To prove that a defendant has purposefully availed itself of a state, a plaintiff may rely upon a defendant's specific contacts with the forum state. Personal jurisdiction pursuant to such contacts is known as specific jurisdiction. Specific jurisdiction is invoked when a claim is related to or arises out of the defendant's contacts with the forum. A court must first determine whether the defendant had the minimum contacts with the forum necessary for the defendant to have reasonably anticipated being haled into court there. What constitutes minimum contacts varies with the quality and nature of a defendant's activity.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN6] In assessing the sufficiency of minimum contacts for personal jurisdiction, a court must focus on the relationship among the defendant, the forum and the litigation. Otherwise stated, there must be at least a single deliberate contact with the forum state that relates to the cause of action. The unilateral acts of the plaintiff, however, will not amount to minimum contacts.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN7] In the context of personal jurisdiction, assuming minimum contacts have been established, a court may inquire whether the assertion of personal jurisdiction would comport with fair play and substantial justice. For personal jurisdiction to comport with fair play and substantial justice, it must be reasonable to require the defendant to defend the suit in the forum state. To determine reasonableness, a court considers the following factors: the burden on the defendant, the forum state's interest in adjudicating the dispute, the plaintiff's interest in obtaining convenient and effective relief, the interstate judicial system's interest in obtaining the most efficient resolution of controversies, and the shared interest of the several states in furthering substantive social policies. Only in rare cases do the minimum requirements inherent in the concept of fair play and substantial justice defeat the reasonableness of jurisdiction even though the defendant has purposefully engaged in forum activities.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN8] If a plaintiff cannot establish specific jurisdiction, a court may exercise general jurisdiction over the defendant if the defendant has maintained continuous and systematic contacts with the forum state. To establish general jurisdiction, a plaintiff must show significantly more than mere minimum contacts with the forum state. Moreover, the facts required to establish general jurisdiction must be extensive and persuasive.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

Evidence > Procedural Considerations > Inferences & Presumptions

[HN9] The burden to produce actual evidence of a defendant's contacts with the forum state rests on the plaintiffs.

Civil Procedure > Jurisdiction > Subject Matter Jurisdiction > Jurisdiction Over Action

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN10] Where subject matter jurisdiction is based at least in part on a claim arising under the patent laws of

the United States, the Court of Appeals for the Federal Circuit has exclusive jurisdiction over any appeal from the district court. Although the Federal Circuit defers to the interpretation of the state's long arm statute in considering the personal jurisdiction, Federal Circuit law applies when analyzing personal jurisdiction for the purpose of compliance with due process.

Civil Procedure > Preclusion & Effect of Judgments > Law of the Case Doctrine

[HN11] The law-of-the-case doctrine provides that when a court decides upon a rule of law, that decision should continue to govern the same issues in subsequent stages in the same case.

Civil Procedure > Preclusion & Effect of Judgments > Law of the Case Doctrine

[HN12] A legal decision made at one stage of litigation, unchallenged in a subsequent appeal when the opportunity to do so existed, becomes the law of the case for future stages of the same litigation, and the parties are deemed to have waived the right to challenge that decision at a later time.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

[HN13] A defendant may be subject to personal jurisdiction if specific jurisdiction exists. Specific jurisdiction exists when a non-resident defendant purposefully establishes minimum contacts with the forum state. A defendant meets the three prong test for determining if minimum contacts are present: (1) whether the defendant purposefully directed its activities at residents of the forum; (2) whether the claim arises out of or relates to those activities, and (3) whether assertion of personal jurisdiction is constitutionally reasonable.

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Personal Jurisdiction

Civil Procedure > Jurisdiction > Personal Jurisdiction & In Rem Actions > Constitutional Limits

[HN14] Where the assertion of personal jurisdiction is constitutionally reasonable, to rebut, a defendant must make a compelling case that the presence of some other considerations would render jurisdiction unreasonable.

Civil Procedure > Summary Judgment > Burdens of Production & Proof

Civil Procedure > Summary Judgment > Summary Judgment Standard

Patent Law > Infringement > Summary Judgment

[HN15] Patent cases are not immune to summary judgment motions. Summary judgment is as appropriate in a patent case as any other. Summary judgment is appropriate where the moving party establishes that there

is no genuine issue of fact and that it is entitled to a judgment as a matter of law. Fed. R. Civ. P. 56. A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, under the substantive law, it would affect the outcome of the suit. The moving party must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the non-moving party to carry its burden of proof.

Civil Procedure > Summary Judgment > Burdens of Production & Proof

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN16] The party opposing a motion for summary judgment must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings. At the summary judgment stage, the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. And, the court must construe the facts and inferences in the light most favorable to the non-moving party.

Patent Law > Infringement > Defenses > Invalidity

[HN17] Since patent claims are presumptively valid, 35 U.S.C.S. § 282, a defendant must advance clear and convincing evidence of invalidity in order to succeed.

Business & Corporate Entities > Corporations > Shareholders & Other Constituents > Disregard of Corporate Entity

Patent Law > Infringement > Acts of Infringement

[HN18] Pursuant to 35 U.S.C.S. § 271(b), whoever actively induces infringement of a patent shall be liable as an infringer. Under this section, corporate officers who actively assist with their corporation's infringement may be personally liable for inducing infringement regardless of whether the circumstances are such that a court should disregard the corporate entity and pierce the corporate veil.

Patent Law > Infringement > Acts of Infringement

[HN19] Pursuant to 35 U.S.C.S. § 271(b), an officer of a corporation can be held liable for inducement only if it is determined that the officer knew or should have known that his action would induce actual infringement. While proof of intent is necessary, direct evidence is not required; rather circumstantial evidence may suffice.

Patent Law > Infringement > Acts of Infringement

[HN20] See 35 U.S.C.S. § 271(a).

Business & Corporate Entities > Corporations > Shareholders & Other Constituents > Disregard of Corporate Entity

Patent Law > Infringement > Acts of Infringement

[HN21] For individual officers to be personally liable for a company's infringement under 35 U.S.C.S. § 271(a), there must be evidence to justify piercing the corporate veil. Often a party asking a court to disregard the corporate existence will attempt to show that the corporation was merely the alter ego of its officers. More generally, a court may exert its equitable powers and disregard the corporate entity if it decides that piercing the veil will prevent fraud, illegality, injustice, a contravention of public policy, or prevent the corporation from shielding someone from criminal liability. The court, however, must start from the general rule that the corporate entity should be recognized and upheld, unless specific, unusual circumstances call for an exception. Moreover, unless there is at least specific intent to escape liability for a specific tort the cause of justice does not require disregarding the corporate entity.

Business & Corporate Entities > Corporations > Shareholders & Other Constituents > Disregard of Corporate Entity

[HN22] The United States Court of Appeals for the Third Circuit has articulated several factors to consider when deciding whether to pierce the corporate veil: (1) gross undercapitalization and failure to observe corporate formalities; (2) non-payment of dividends; (3) the insolvency of the debtor corporation at the time; (4) siphoning of funds of the corporation by the dominant stockholder, (5) non-functioning of other officers of directors; (6) absence of corporate records, and (7) the fact that the corporation is merely a facade for the operations of the dominant stockholder or stockholders.

Civil Procedure > Relief From Judgment > Motions to Alter & Amend

[HN23] A party seeking reconsideration must show more than a disagreement with the court's decision, and recapitulation of the cases and arguments considered by the court before rendering its original decision fails to carry the moving party's burden. Such motions will only be granted where (1) an intervening change in the law has occurred, (2) new evidence not previously available has emerged, or (3) the need to correct a clear error of law or prevent a manifest injustice arises. Because reconsideration of a judgment after its entry is an extraordinary remedy, requests pursuant to these rules are to be granted sparingly, and only when dispositive factual matters or controlling decisions of law were brought to the court's attention, but not considered.

Patent Law > Infringement > Reverse Doctrine of Equivalents

[HN24] The reverse doctrine of equivalents is an equitable doctrine invoked in applying properly construed claims to an accused device. Under this doctrine, an accused article can avoid literal infringement even if it is within the literal words of the claim, if it is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way. The question of non-infringement under the reverse doctrine of equivalents is one of fact. The doctrine requires both (1) apparent literal infringement of the words of the claims, and (2) that the accused device must be sufficiently different from that which is patented such that despite the apparent literal infringement, the claims are interpreted to negate infringement.

Patent Law > Infringement > Reverse Doctrine of Equivalents

[HN25] The reverse doctrine of equivalents is only applied in the rarest of circumstances.

Civil Procedure > Jurisdiction > Subject Matter Jurisdiction > Jurisdiction Over Action

Civil Procedure > Remedies > Declaratory Relief

[HN26] For a district court to have jurisdiction over a declaratory judgment action regarding the infringement of U.S. patents pursuant to the Declaratory Judgment Act, there must be an actual controversy.

Civil Procedure > Remedies > Declaratory Relief

[HN27] In the context of the Declaratory Judgment Act, for there to be an "actual controversy," there must be both (1) an explicit threat or other action by the patentee, which creates a reasonable apprehension on the part of the declaratory plaintiff that it will face an infringement suit, and (2) present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity. The claimant has the burden of satisfying both prongs of the test. The determination of a "reasonable apprehension" of infringement suit is based upon an objective standard directed to whether the conduct of the patent owner objectively creates such apprehension of suit.

Patent Law > Infringement > Burdens of Proof

[HN28] The courts have not required an express infringement charge. When the defendant's conduct, including its statements, falls short of an express charge, one must consider the totality of the circumstances in determining whether that conduct meets the first prong of the test.

Civil Procedure > Remedies > Declaratory Relief

[HN29] In the patent context, the purpose of the Declaratory Judgment Act is to protect threatened parties, not to drag a non-threatening patentee into court. Even when an actual controversy is found, a court's exercise of declaratory judgment jurisdiction is discretionary.

Patent Law > Infringement > Burdens of Proof

[HN30] A single rough sketch provided during deposition testimony is not sufficient evidence of a conflict that was real and immediate to the level that it would be considered extra-judicial patent enforcement.

Civil Procedure > Remedies > Declaratory Relief

Patent Law > Infringement > Acts of Infringement

[HN31] In order to establish the "present activity" prong, a plaintiff must establish a true interest to be protected by the declaratory judgment. To do this, the plaintiff must be engaged in an actual making, selling, or using activity subject to an infringement charge or must have made meaningful preparation for such activity. The determination of whether plaintiff's ability and intention to undertake potentially infringing activity constitutes sufficient preparation is a question of degree to be resolved on a case-by-case basis.

Civil Procedure > Pleading & Practice > Pleadings > Counterclaims & Cross-Claims

[HN32] A court, using its discretion, may dismiss a counterclaim if the investment of judicial time and resources is simply not warranted.

Patent Law > Novelty & Anticipation

[HN33] To anticipate a patent claim under 35 U.S.C.S. § 102, all of the elements of the claim must be disclosed to a person of ordinary skill in the art either expressly or inherently in a single prior art reference. There is no requirement that the anticipatory reference be either the same or a related art.

Patent Law > Novelty & Anticipation

Patent Law > Infringement > Summary Judgment

[HN34] The determination of anticipation of a patent is a question of fact. To make such finding on summary judgment, the court must determine that no facts material to the question are disputed; or that even if all material factual inferences are drawn in favor of the non-movant, there is no reasonable basis on which the non-movant can prevail.

Patent Law > Infringement > Claim Interpretation

[HN35] The construction of patent claims is a matter of law exclusively for the court.

Patent Law > Infringement > Claim Interpretation

[HN36] When construing patent claims, a court must first look to the intrinsic evidence, which consists of the patent claims, the specification, and the prosecution history if in evidence. Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language. The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms. Of course, claim construction is not philosophy, it is firmly anchored in reality by the understanding of those of ordinary skill in the art. And although the prosecution history can and should be used to understand the language used in the claims, it may not be used to enlarge, diminish, or vary the limitations in the claims.

Patent Law > Infringement > Claim Interpretation

[HN37] When construing patent claims, in most situations, an analysis of intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence, such as expert testimony, treatises and dictionaries, and articles. Accordingly, where the patent documents are unambiguous, expert testimony is entitled to no weight. Prior art may serve as a guide to the meaning of a disputed term and, particularly, as a time-saving demonstration of how a disputed term is used by those skilled in the art. Finally, opinion testimony on claim construction should be treated with the utmost caution, because such testimony amounts to no more than legal opinion -- it is precisely the process of construction that the court must undertake.

Patent Law > Infringement > Claim Interpretation

[HN38] A patent claim must be read as a whole, rather than element by element. The language of the claim frames and ultimately resolves all issue of claim interpretation.

Patent Law > Infringement > Claim Interpretation

[HN39] Patent claims must be read in view of the specification, of which they are a part. The description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. The specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term. A construction that stays true to the claim language and the description of the invention will be the correct construction. However, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments. Of course, a patentee is free to define a claim term differently from its ordinary meaning, but any

special definition must be clearly stated in the patent specification or file history.

Patent Law > Infringement > Claim Interpretation

[HN40] In the context of patent claim construction, although technical treatises and dictionaries fall within the category of extrinsic evidence, they are worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.

Patent Law > Infringement > Claim Interpretation

[HN41] The specification is always highly relevant to the patent claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Patent Law > Novelty & Anticipation

[HN42] Although a defendant presents evidence of other claims in a patent being anticipated, even if one element of one claim is not anticipated, then the defendants anticipation defense fails, and the court need not examine the remaining claims.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN43] See 35 U.S.C.S. § 103.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN44] Obviousness is ultimately a question of law that rests upon underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective considerations of non-obviousness. Because an issued patent is presumed valid, there must be clear and convincing evidence supporting the obviousness determination.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN45] In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN46] A determination of obviousness requires a comparison of the claims as construed. Not unlike a determination of infringement, a determination of anticipation, as well as obviousness, involves two steps.

First is construing the claim, a question of law for the court, followed by, in the case of anticipation or obviousness, a comparison of the construed claim to the prior art. This comparison process involves fact-finding, and is for the fact-finder in the first instance.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN47] In appropriate circumstances, a single prior art reference can render a claim obvious. However, there must be a showing of a suggestion or motivation to modify the teachings of the reference to the claimed invention in order to support the obviousness conclusion.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN48] In the context of 35 U.S.C.S. § 103, two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field or endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventors endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

Patent Law > Specification & Claims > Best Mode

[HN49] See 35 U.S.C.S. § 112, para. 1.

Patent Law > Specification & Claims > Best Mode

[HN50] To prove that a patent is invalid for failure to disclose best mode requires that (1) the inventors knew of a better mode of carrying out the claimed invention than they disclosed in the specification, and (2) the inventors concealed that better mode. The threshold question is whether the inventor knew at the time of filing of a best mode for practicing his claimed invention. This inquiry is entirely subjective focusing on the inventor's state of mind at the time of filing. Only after determining that the inventor had a best mode for practicing, should one proceed to the inquiry of whether the specification adequately disclosed the best mode. Defendant has the burden of proof to show by clear and convincing evidence that there has been a best mode violation.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Examination of Applications

[HN51] The effect of a patent with a certificate of correction would be as if the same had been originally issued in such corrected form for causes thereafter arising.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Examination of Applications

[HN52] A certificate issued after the initiation of a lawsuit cannot be given retroactive effect.

Patent Law > Specification & Claims > Best Mode

[HN53] Commercial embodiments are not equivalent to the best mode of a claimed invention.

Patent Law > Specification & Claims > Best Mode

[HN54] The inquiry for a best mode violation is whether there is clear and convincing evidence that the inventor both knew of and concealed a better mode of carrying out the claimed invention than was set forth in the specification.

Patent Law > Specification & Claims > Best Mode

[HN55] The best mode requirement is directed to what the applicant regards as the invention, which in turn is measured by the claims. Unclaimed elements may also be subject to the best mode requirement if they are necessary to implement the claimed invention.

Patent Law > Specification & Claims > Best Mode

[HN56] The general rule is that a best mode violation exists only where the undisclosed method affects how well the invention works.

Patent Law > Specification & Claims > Best Mode

[HN57] Unclaimed elements are subject to best mode when they are necessary to implement the claimed invention.

Patent Law > Specification & Claims > Best Mode

[HN58] The best mode requirement has nothing to do with mass production or with sales to customers having particular requirements.

Trademark Law > Federal Unfair Competition Law > Lanham Act sec. 43(a)

[HN59] See 15 U.S.C.S. § 1125(a)(1).

Trademark Law > Federal Unfair Competition Law > Lanham Act sec. 43(a)

[HN60] To establish a claim under § 43(a) of the Lanham Act, a defendant must prove the following: (1) False or misleading statements made by plaintiff as to its product or another's; (2) that there is actual deception, or a tendency to deceive a substantial portion of the intended audience; (3) that the deception is material in that it is likely to influence purchasing decisions; (4) that the advertised goods traveled in interstate commerce; (5) that there is a likelihood of injury to defendant in terms of declining sales, loss of good will, etc.

Trademark Law > Federal Unfair Competition Law > Lanham Act sec. 43(a)

[HN61] In order for a claim for unfair competition under § 43(a) of the Lanham Act to be sustained against a patentee's statements regarding its patent rights, the claimant must show bad faith by the patentee. This requirement stems from the privileged right of a patentee to notify the public of its patent rights as provided by the patent laws. 35 U.S.C.S. § 287.

Torts > Business & Employment Torts > Interference With Prospective Advantage

[HN62] With respect to a defendant's claims of tortious interference with prospective economic advantage based on a publication of a patent in the marketplace, such are barred by federal patent laws under principles of federal preemption unless the complainant can prove that the patentholder acted in bad faith. To sustain its claim, a defendant must establish the elements for tortious interference and prove that the alleged interference was made in bad faith, not simply incidental to the lawful purpose of enforcing and protecting patent rights.

Patent Law > Ownership & Transfer of Rights > Recordation in the U.S. Patent & Trademark Office

[HN63] Under the patent laws, there is an interest in protecting the privileged right of a patentee to notify the public of its patent rights as provided by the patent laws.

Patent Law > Inequitable Conduct > Burdens of Proof

[HN64] A threshold showing of incorrectness or falsity, or disregard for either, is required for a showing of bad faith. Federal precedent is that communication to possible infringers concerning patent rights is not improper if the patent holder has a good faith belief in the accuracy of the communication. Although bad faith may encompass subjective as well as objective considerations, and the patent holder's notice is not irrelevant to a determination of bad faith, a competitive commercial purpose is not of itself improper, and bad faith is not supported when the information is objectively accurate. In general, a threshold showing of incorrectness or falsity, or disregard for either, is required in order to find bad faith in the communication of information about the existence or pendency of patent rights.

Patent Law > Inequitable Conduct > Burdens of Proof

[HN65] It is not improper for a patent owner to advise possible infringers of its belief that a particular product may infringe the product.

Civil Procedure > Summary Judgment > Supporting Papers & Affidavits

Civil Procedure > Summary Judgment > Partial Summary Judgment

[HN66] A requirement under Fed. R. Civ. P. 56(f) is that the party must be diligent in pursuing discovery before summary judgment.

Civil Procedure > Sanctions > Baseless Filings

[HN67] Fed. R. Civ. P. 11 imposes on counsel a duty to look before leaping. To comply with the requirements for a reasonable investigation of the facts and a normally competent level of legal research to support the presentation under Rule 11, the courts must apply an objective standard of reasonableness under the circumstances.

Civil Procedure > Sanctions > Baseless Filings

[HN68] See Fed. R. Civ. P. 11.

Civil Procedure > Sanctions > Baseless Filings

[HN69] Federal courts recognize that one factor that is used to determine the objective reasonableness of a prefilings inquiry is the extent to which factual development requires discovery.

Civil Procedure > Sanctions > Baseless Filings

[HN70] There are valid reasons for withdrawing claims.

Civil Procedure > Sanctions > Baseless Filings

[HN71] A voluntary dismissal of counts cannot by itself be a sufficient reason to award sanctions under Fed. R. Civ. P. 11, since a party's motive for dismissing counts may reflect litigation strategy rather than frivolity of the counts.

COUNSEL:

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For Ken Specialties and Kengott, Defendants: Peter T. Cobrin, Marvin S. Gittes, David W. Denenberg, Oren J. Warshavsky, COBRIN & GITTES, New York, NY.

JUDGES:

William H. Walls, U.S.D.J.

OPINIONBY:

William H. Walls

OPINION:

Walls, District Judge

This matter comes before this Court on eight motions brought by the parties. First, defendant Dale

Kengott ("Kengott") moves to dismiss for lack of personal jurisdiction and alternatively, for summary judgment on liability under 35 U.S.C. § 271(a) and (b). That motion is denied with respect to the motion to dismiss and the motion for summary judgment for liability under § 271(b); the motion for summary judgment for liability under § 271(a) is granted. Second, defendant Ken Specialties ("Ken") and Kengott (collectively "Defendants") move for this Court to reconsider its November 28, 2000 Opinion ("November 2000 Opinion"). That motion is [*3] denied. n1 Plaintiff SDS USA, Inc. ("SDS") moves to dismiss Ken's First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1). That motion is granted. Fourth, Defendants move for summary judgment that U.S. Patent No. 5,870,919 is invalid due to anticipation under 35 U.S.C. § 102. That motion is denied. Fifth, Defendants move for summary judgment on the issues of obviousness and best mode under 35 U.S.C. § 103 and 35 U.S.C. § 112, respectively. That motion is denied. Sixth, SDS cross-moves for summary judgment dismissing Ken's best mode defense. That motion is granted with respect to Claims 1-8, 10 and 11 and denied as to Claims 9 and 12. Seventh, SDS moves for summary judgment dismissing Ken's counterclaims for "unfair competition." That motion is granted. Eighth, Defendants move to submit a supplemental memorandum and declaration in opposition to Plaintiff's motion for summary judgment on the issue of obviousness. n2 That motion is mooted.

n1 This Court notes that it has considered the merits of Defendants' arguments but has found that reconsideration of factual errors made and matters overlooked by this Court in its November 2000 Opinion does not change its ultimate findings. [*4]

n2 This Court also notes that the Ken has moved by letter to this Court dated May 2, 2001 to supplement its opposition to SDS' motion for summary judgment on issues of unfair competition. Notwithstanding the fact that this motion was not filed according to formal motion practice in accordance with the rules of this district and Court, this Court has considered the supplement and has determined that the evidence set forth by Ken does not change the outcome of the motion.

I. KENGOTT'S MOTION TO DISMISS FOR LACK OF PERSONAL JURISDICTION PURSUANT TO FED. R. P. 12(b) AND ALTERNATIVELY FOR

SUMMARY JUDGMENT ON THE ISSUE OF LIABILITY

Dale Kengott moves to dismiss the Complaint for lack of personal jurisdiction pursuant to Fed. R. Civ. P. 12(b)(2) or alternatively, summary judgment on the issue of liability of defendant Dale Kengott. Kengott's motion to dismiss for lack of personal jurisdiction and motion for summary judgment as to 35 U.S.C. § 271(b) are denied; his motion for summary judgment as to 35 U.S.C. § 271(a) is granted.

A. Facts and [*5] Procedural Background

On May 19, 2000, SDS filed its motion for leave to file an amended complaint to add Dale Kengott, president of Ken Specialties, as a defendant on the basis that Kengott has induced and continues to induce infringement of the '919 patent in violation of 35 U.S.C. § 271(b) and, alternatively, under a theory of piercing the corporate veil under § 271(a). Ken opposed the motion by arguing that there was no personal jurisdiction over Mr. Kengott in New Jersey, and that the amendment should be dismissed under Fed. R. Civ. P. 12(b)(6); and (ii) that Kengott could not be liable under § 271 of the Patent Code because he obtained a noninfringement opinion of counsel and consequently he did not have the intent necessary to be found liable for inducing his corporation to infringe the '919 patent.

The Magistrate Judge granted the motion for leave to amend the complaint and noted on the record that there were sufficient facts present for a jury to potentially find Mr. Kengott liable under § 271(b) for inducing Ken to infringe the '919 patent and under § 271(a) under a theory of piercing the corporate veil. (See Garbell Decl. Ex. 1; July 19, 2000 Tr. [*6] and Magistrate Judge Davis' July 21, 2000 Order.)

Ken appealed the Magistrate Judge's ruling to this Court, arguing that her order permitting Kengott to be added as a defendant because of alleged liability under 35 U.S.C. § 271(a) and (b) was clearly erroneous as a matter of law. This Court denied Ken's appeal and affirmed the Magistrate Judge's Order in its September 21, 2000 Opinion and Order. (See Garbell Decl. Ex. 2.)

Now Ken moves to dismiss the complaint because of lack of personal jurisdiction, or alternatively seeks summary judgment on liability under 35 U.S.C. § 271(a) and (b).

B. Personal Jurisdiction Standard

[HN1] Pursuant to Federal Rule of Civil Procedure 4(e), federal "district courts have personal jurisdiction over non-resident defendants to the extent authorized under the law of the forum state in which the district court sits." See Sunbelt Corp. v. Noble, Denton &

Associates, Inc., 5 F.3d 28, 31 (3d Cir.1993). [HN2] New Jersey's long arm statute provides for personal jurisdiction as far as is permitted by the Fourteenth Amendment to the United States Constitution. See N.J. Civ. Pract. R. 4:4-4; Carteret Savings Bank, FA v. Shushan, 954 F.2d 141, 145 (3d Cir. 1992); [*7] DeJames v. Magnificence Carriers, Inc., 654 F.2d 280, 284 (3d Cir. 1981). Therefore, [HN3] the question of whether this Court has jurisdiction over the defendant is determined by federal constitutional law. See Mesalic v. Fiberfloat Corp., 897 F.2d 696, 698 (3d Cir. 1990).

[HN4] The Fourteenth Amendment permits a state to exercise jurisdiction over an out-of-state defendant only where "the defendant purposefully avails itself of the privilege of conducting activities within the forum State, thus invoking the benefits and protections of its laws." Burger King Corp. v. Rudzewicz, 471 U.S. 462, 475, 105 S. Ct. 2174, 2183, 85 L. Ed. 2d 528 (1985) (quoting Hanson v. Denckla, 357 U.S. 235, 253, 78 S. Ct. 1228, 1239-40, 2 L. Ed. 2d 1283 (1958)). It is the burden of the plaintiff to prove that the defendant has purposefully availed himself of the forum state. See Burke v. Quartey, 969 F. Supp. 921, 924 (D.N.J. 1997).

[HN5] To prove that the defendant has purposefully availed itself of that state, a plaintiff may rely upon a defendant's specific contacts with the forum state. Personal jurisdiction pursuant to such contacts [*8] is known as specific jurisdiction. Specific jurisdiction is invoked when a claim is related to or arises out of the defendant's contacts with the forum. See Helicopteros Nacionales de Colombia, S.A. v. Hall, 466 U.S. 408, 414, 104 S. Ct. 1868, 1873, 80 L. Ed. 2d 404 (1984); Dollar Sav. Bank v. First Security Bank of Utah, 746 F.2d 208, 211 (3d Cir. 1984). A court must first determine whether the defendant had the minimum contacts with the forum necessary for the defendant to have "reasonably anticipated being haled into court there." World-Wide Volkswagen Corporation v. Woodson, 444 U.S. 286, 297, 100 S. Ct. 559, 567, 62 L. Ed. 2d 490 (1980) (citations omitted). What constitutes minimum contacts varies with the "quality and nature of defendant's activity." Hanson, 357 U.S. at 253, 758 S. Ct. at 1240. [HN6] In assessing the sufficiency of minimum contacts for personal jurisdiction, the court must focus on the "relationship among the defendant, the forum and the litigation." Keeton v. Hustler Magazine, Inc., 465 U.S. 770, 774, 104 S. Ct. 1473, 1478, 79 L. Ed. 2d 790 (1984). Otherwise stated, there must be [*9] at least "a single deliberate contact" with the forum state that relates to the cause of action. United States Golf Ass'n v. United States Amateur Golf Ass'n, 690 F. Supp. 317, 320 (D.N.J. 1988). The unilateral acts of the plaintiff, however, will not amount to minimum contacts.

Helicopteros, 466 U.S. at 414, 104 S. Ct. at 1872; *Hanson*, 357 U.S. at 253, 78 S. Ct. at 1239-40.

Second, [HN7] assuming minimum contacts have been established, a court may inquire whether "the assertion of personal jurisdiction would comport with 'fair play and substantial justice.'" *Burger King*, 471 U.S. at 476, 105 S. Ct. at 2184 (quoting *International Shoe Company v. Washington*, 326 U.S. 310, 320, 66 S. Ct. 154, 160, 90 L. Ed. 95 (1945)); *Pennzoil Products Co. v. Colelli & Assoc., Inc.*, 149 F.3d 197, 201 (3d Cir. 1998). For personal jurisdiction to comport with "fair play and substantial justice," it must be reasonable to require the defendant to defend the suit in the forum state. See *World-Wide Volkswagen*, 444 U.S. at 292, 100 S. Ct. at 564. To determine reasonableness, a court considers the [*10] following factors: the burden on the defendant, the forum state's interest in adjudicating the dispute, the plaintiff's interest in obtaining convenient and effective relief, the interstate judicial system's interest in obtaining the most efficient resolution of controversies, and the shared interest of the several States in furthering substantive social policies. *Id.* Only in "rare cases [do the] minimum requirements inherent in the concept of fair play and substantial justice ... defeat the reasonableness of jurisdiction, even [though] the defendant has purposefully engaged in forum activities." *Asahi Metal Industry Co., Ltd. v. Superior Court of Cal., Solano County*, 480 U.S. 102, 116, 107 S. Ct. 1026, 1034, 94 L. Ed. 2d 92 (1987).

[HN8] If the plaintiff cannot establish specific jurisdiction, a court may exercise general jurisdiction over the defendant if the defendant has maintained "continuous and systematic" contacts with the forum state. *Helicopteros*, 466 U.S. at 416, 104 S. Ct. at 1872. To establish general jurisdiction the plaintiff must show significantly more than mere minimum contacts with the forum state. *Provident Nat'l Bank v. California Fed. Sav. & Loan Ass'n*, 819 F.2d 434, 437 (3d Cir. 1987). [*11] Moreover, the facts required to establish general jurisdiction must be "extensive and persuasive." *Reliance Steel Prods. v. Watson, Ess, Marshall & Enggas*, 675 F.2d 587, 589 (3d Cir. 1982).

[HN9] The burden to produce actual evidence of the defendant's contacts with the forum state rests on the plaintiffs. *Time Share Vacation Club v. Atlantic Resorts, Ltd.*, 735 F.2d 61, 66 and n. 9 (3d Cir. 1984); see also *Stranahan Gear Co., Inc. v. NL Industries, Inc.*, 800 F.2d 53, 58 (3d Cir. 1986) (cursory allegation reiterated in a sworn affidavit is insufficient to satisfy the plaintiff's burden of proof).

[HN10] Where subject matter jurisdiction is based at least in part on a claim arising under the patent laws of the United States, the Court of Appeals for the Federal

Circuit has exclusive jurisdiction over any appeal from the district court. *3 D Systems, Inc. v. Aarotech Laboratories, Inc.*, 160 F.3d 1373, 1377 (Fed. Cir. 1998). Although the Federal Circuit defers to the interpretation of the state's long arm statute in considering the personal jurisdiction, Federal Circuit law applies when analyzing personal jurisdiction for the purpose [*12] of compliance with due process. *Id.*

C. Is There Personal Jurisdiction over Dale Kengott?

Defendants contend that SDS has failed to satisfy its burden of demonstrating that this Court may exercise personal jurisdiction over Mr. Kengott. Defendants argue that there is no personal jurisdiction over Kengott because he is a resident of Illinois, and as president of Ken, does not sell any products, including those accused of infringement, in his personal capacity. (*Kengott Decl.* PP2-3.) Mr. Kengott explains that his contacts with New Jersey are by chance, meaning that the products his company sold happened to end up in New Jersey, as well as other states. Defendants also argue that Kengott's contacts were non-existent for the ten-year period before this lawsuit. *Id.* at PP4-7. Further, according to Defendants, Kengott's transactions with the state of New Jersey are not related to this cause of action.

SDS first argues that the law-of-the-case doctrine applies here to prevent this Court from reexamining the issue. [HN11] The law-of-the-case doctrine provides that "when a court decides upon a rule of law, that decision should continue to govern the same issues in subsequent stages [*13] in the same case." See *Arizona v. California*, 460 U.S. 605, 618, 103 S. Ct. 1382, 1391, 75 L. Ed. 2d 318 (1983) (citation omitted). SDS contends that Ken's decision not to appeal the personal jurisdiction aspect of the Magistrate Judge's ruling does not justify a later attempt for reargument by using a different procedural rule when the evidence presented is identical. Indeed, [HN12] "a legal decision made at one stage of litigation, unchallenged in a subsequent appeal when the opportunity to do so existed, becomes the law of the case for future stages of the same litigation, and the parties are deemed to have waived the right to challenge that decision at a later time." *Williamsburg Wax Museum, Inc. v. Historic Figures, Inc.*, 258 U.S. App. D.C. 124, 810 F.2d 243, 250 (D.C. Cir. 1987).

However, this Court disagrees with SDS' argument that the law-of-the-case doctrine should apply. As Ken argues, the Magistrate Judge did not specifically address personal jurisdiction in her findings and it is unclear from the transcript as to whether she considered this defense in her decision to grant the motion for leave to amend the complaint. (See *Garbell Decl.* Ex. 1.) [*14]

Nevertheless, this Court does possess personal jurisdiction over Mr. Kengott. As discussed, [HN13] Kengott may be subject to personal jurisdiction if "specific jurisdiction" exists. See Burger King, 471 U.S. at 472, 105 S. Ct. at 2182 (1985). Specific jurisdiction exists when a non-resident defendant purposefully establishes minimum contacts with the forum state. Id. Here Ken meets the three prong test for determining if minimum contacts are present: (1) whether the defendant purposefully directed its activities at residents of the forum; (2) whether the claim arises out of or relates to those activities, and (3) whether assertion of personal jurisdiction is constitutionally reasonable. See Akro Corp v. Luker, 45 F.3d 1541, 1545-46 (Fed. Cir. 1995).

For the first prong, the evidence obtained during discovery reveals that Kengott purposefully directed his activities at New Jersey. His company, Ken, kept detailed records of all of the products sold in New Jersey and these documents demonstrate his involvement in those sales. (Garbell Decl. Exs. 3, 4.) Kengott also admitted at his deposition that he was personally involved in the sales of Ken's products [*15] in New Jersey, including approving the sales in New Jersey and ordering and importing into the United States the alleged infringing machines from the supplier to be shipped to New Jersey. (Garbell Decl. Ex. 5; Kengott Dep. at 103-05.)

Plaintiff also refers to evidence that Kengott personally directed the sales of the allegedly infringing product. First, Kengott has testified that he made the initial decision that Ken would sell the Multi-Bender. (Garbell Decl. Ex. 6; Kengott Dep. at 36:2-10.) He also made the decision to continue to sell the Multi-Bender following the issuance of the '919 patent and notice to Ken. (See id. at 36:2-10 and 146:19-150:5.) Plaintiff also points out that Kengott also exercises complete control over virtually every aspect of the sale of the Multi-Bender, from marketing (see id. at 34:3-8), ordering from the manufacturer (Young Wha Dieboard, Ltd.), (see id. at 47:16-17), and keeping the business records for Multi-Bender sales (see id. at 53:9-20). Kengott testified: "I'm the only guy that handles the Multi-Bender stuff" (See id. at 228:8-9.) While other officers were involved with the sale of its predecessor bending device, only Kengott was involved [*16] in the MultiBender sales. (Id. at 47:10-17 and 48:24-49:7.) Consequently, the first prong of the minimum contacts test is met because Kengott purposefully directed, authorized and participated in sales of the alleged infringing device to the State of New Jersey.

Ken also meets the second prong because SDS' claim of patent infringement arises out of, or relates to,

Ken's activities of selling the Multi-Bender in New Jersey.

Finally, the third prong is met because [HN14] the assertion of personal jurisdiction is constitutionally reasonable. To rebut, Ken must make a "compelling case that the presence of some other considerations would render jurisdiction unreasonable." See Akro 45 F.3d at 1545-46. Ken has not done so here. Furthermore, because he personally directed sales of the Multi-Bender in New Jersey, it is reasonable that Mr. Kengott would anticipate being haled into court in New Jersey. See WorldWide Volkswagen, 444 U.S. at 297, 100 S. Ct. at 566 ("The foreseeability that is critical to due process analysis is ... that the defendant's conduct and connection with the forum state are such that he should reasonably anticipate being haled into court there."). [*17]

This Court finds that it has personal jurisdiction over Kengott and denies Kengott's motion to dismiss on this ground.

D. Kengott's Summary Judgment Motion on Liability

Alternatively, Kengott moves for summary judgment that he is not liable under 35 U.S.C. § 271(a) and (b).

1. Summary Judgment Standard

[HN15] Patent cases are not immune to summary judgment motions. The Federal Circuit has "repeatedly emphasized that 'summary judgment is as appropriate in a patent case as any other.'" Avia Group Int'l, Inc. v. L.A. Gear California, 853 F.2d 1557, 1561 (Fed. Cir. 1988) (citations omitted). Summary judgment is appropriate where the moving party establishes that "there is no genuine issue of fact and that [it] is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56. A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48, 106 S. Ct. 2505, 2510, 91 L. Ed. 2d 202 (1986). A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, [*18] under the substantive law, it would affect the outcome of the suit. See id. at 248, 106 S. Ct. at 2510. The moving party must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the non-moving party to carry its burden of proof. See Celotex v. Catrett, 477 U.S. 317, 318, 106 S. Ct. 2548, 2550, 91 L. Ed. 2d 265 (1986).

[HN16] The party opposing a motion for summary judgment must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings. See Sound Phillip Ship

Bldg. Co. v. Bethlehem Steel Co., 533 F.2d 96, 99 (3d Cir. 1976), cert. denied, 429 U.S. 860, 97 S. Ct. 161, 50 L. Ed. 2d 137 (1976). At the summary judgment stage, the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249, 106 S. Ct. 2505, 2511, 91 L. Ed. 2d 202 (1986). And, the court must construe the facts and inferences in the light most favorable to [*19] the non-moving party. See Wahl v. Rexnord, Inc., 624 F.2d 1169, 1181 (3d Cir. 1980).

[HN17] Since patent claims are presumptively valid, 35 U.S.C. § 282, defendants must advance clear and convincing evidence of invalidity in order to succeed. See generally Intel Corp. v. United States Int'l Trade Comm'n, 946 F.2d 821, 829 (Fed. Cir. 1991); Tyler Refrigeration v. Kysor Indus. Corp., 777 F.2d 687, 690 (Fed. Cir. 1985).

2. Inducement Under § 271(b)

[HN18] Pursuant to § 271(b) of the Patent Code "whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). Under this section, corporate officers who actively assist with their corporation's infringement may be personally liable for inducing infringement "*regardless* of whether the circumstances are such that a court should disregard the corporate entity and pierce the corporate veil." See Manville Sales Corp., v. Paramount Sys., Inc., 917 F.2d 544, 553 (Fed. Cir. 1990), *citing* Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1578-79 (Fed. Cir. 1986). [*20]

[HN19] An officer of a corporation can be held liable for inducement only if it is determined that the officer "knew or should have known" that his action would induce actual infringement. Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1261 (Fed. Cir. 1999) (quoting Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 553 (Fed. Cir. 1990)). "While proof of intent is necessary, direct evidence is not required; rather circumstantial evidence may suffice." Water Tech. Corp. v. Calco, Ltd., 850 F.2d 660, 668 (Fed. Cir. 1988) (citation omitted).

Kengott attempts to obtain summary judgment by asserting the affirmative defense that he had a good faith reliance on a noninfringement opinion of counsel. See Micro Chem., 194 F.3d at 1261 (recognizing affirmative defense of relying on competent advice of counsel to defeat a finding of liability for inducement to infringe).

SDS counters that although good faith reliance on an opinion of counsel is a defense to inducement, Kengott has not presented evidence to assert such an affirmative

defense. His assertion that he relied on opinion of counsel when he decided [*21] to sell, and more important, continue selling the alleged infringing device after notice of the '919 patent, is belied by his own testimony, says SDS. As example, before being added as a party, Kengott conceded that his reason for continuing to sell the Multi-Bender was based on the indemnification agreement he had obtained from the supplier of the Multi-Bender, Young Wha Dieboard, Ltd., *not on the opinion of counsel*. (Garbell Decl. Ex. 7, Kengott Dep. at 323-25). Moreover, the advice of counsel purportedly relied upon by Kengott, was not provided to him until June 1, 1999, *nearly two months after* Kengott's decision to continue selling the allegedly infringing product, and nearly four months after the suit was amended to include the '919 patent. (Garbell Decl. Ex. 8).

Notwithstanding that there exists doubt that Kengott actually relied on the opinion of counsel, there is also the question of whether any purported reliance was reasonable. SDS argues that Mr. Kengott did not himself request the opinion -- his trial counsel did. (Garbell Decl. Ex. 5, Kengott Dep. at 75-77, 82-83.) Mr. Kengott did not question the soundness of the opinion, see id. at 88; and did not even understand [*22] the very document that his attorneys used to understand the device. (See id. at 80, 98-99.) Thus, says SDS, Kengott did not rely on the opinion of counsel at all, and is using that defense for litigation purposes only -- to avoid a charge of inducement to infringe.

SDS argues that the cases cited by Ken for the proposition that corporate officers may escape liability by demonstrating good-faith reliance on counsel do not assist him. Those courts found that the corporate president had in fact relied on the opinion of counsel. Cf. Micro Chem., 194 F.3d at 1261 (granting summary judgment that the corporate president was not liable under § 271(b) for inducement after finding that the president had relied on the advice of counsel and unsuccessfully attempted to redesign the accused machine); Hoover Group v. Metalcraft, Inc., 84 F.3d 1408, 1412 (Fed. Cir. 1996) (finding that the corporate president had, in fact, consulted with counsel and relied on the opinion received); Manville Sales, 917 F.2d at 552-53 (finding that there was "a good faith belief" based on advice of counsel that the product did not infringe). Here Kengott acknowledged [*23] that he acted based on the indemnification agreement, not on the opinion of counsel.

According to SDS, there is ample evidence obtained during discovery demonstrating that Kengott actively aided and abetted his corporation's infringement. As discussed, Kengott has testified that he made the initial decision to sell the Multi-Bender. (Garbell Decl. Ex. 6;

Kengott Dep. at 36:2-10.) Kengott exercises complete control over virtually every aspect of the sale of the Multi-Bender, from marketing (see *id.* at 34:3-8), ordering from the manufacturer Young Wha Dieboard, Ltd., (see *id.* at 47:16-17), to keeping the business records for the corporation's Multi-Bender sales (see *id.* at 53:9-20). In SDS' view, this is sufficient evidence to demonstrate that Kengott actively and knowingly assisted with the alleged infringement of the '919 patent, in violation of 35 U.S.C. § 271(b).

After reviewing the evidence, this Court finds that there remains a genuine issue of material fact as to whether Kengott relied on the opinion of counsel in good faith and if so, whether such reliance was reasonable. Although Ken obtained the advice of counsel, it is unclear whether it was the basis [*24] for his decision to continue sales -- especially considering the circumstance that Ken directed that sales continue for four months after notice of the '919 patent and two months *before* he received the opinion of counsel in June 1999. Consequently, Ken's motion for summary judgment with respect to Section 271(b) is denied.

3. Liability Under § 271(a)

Ken moves for summary judgment on the issue of piercing the corporate veil for liability under 35 U.S.C. § 271(a). Ken essentially argues that SDS has not met the specific intent requirement as well as other factors relevant to patent infringement liability for corporate officers under a veil piercing theory. See Manville Sales, 917 F.2d at 552.

Section 271(a) provides that [HN20] "whoever without authority makes, uses, offers to sell, or sells any patented invention ... infringes the patent." 35 U.S.C. § 271(a). The Federal Circuit has advised:

[HN21] For [individual officers] to be personally liable for Paramount's infringement under section 271(a), there must be evidence to justify piercing the corporate veil Often a party asking a court to disregard the corporate [*25] existence will attempt to show that the corporation was merely the alter ego of its officers More generally, a court may exert its equitable powers and disregard the corporate entity if it decides that piercing the veil will prevent fraud, illegality, injustice, a contravention of public policy, or prevent the corporation from shielding someone from criminal liability The court, however, must "start from the general rule that the corporate entity should be recognized and upheld, unless specific, unusual circumstances call for an exception." ... Moreover, unless there is at least "specific intent to escape liability for a specific tort ... the cause of justice does not require disregarding the corporate entity."

Manville Sales, 917 F.2d at 552 (citations omitted). [HN22] The Third Circuit has articulated several factors to consider when deciding whether to pierce the corporate veil:

[1] gross undercapitalization and failure to observe corporate formalities; [2] non-payment of dividends; [3] the insolvency of the debtor corporation at the time; [4] siphoning of funds of the corporation by the dominant stockholder, [5] non-functioning of other [*26] officers of directors; [6] absence of corporate records, and [7] the fact that the corporation is merely a facade for the operations of the dominant stockholder or stockholders.

See U.S. v. Pisani, 646 F.2d 83, 88 (3d Cir. 1981).

Ken argues that the evidence to demonstrate that Ken is a mere instrumentality of Kengott is lacking: There is no evidence of manipulation and the complaint does not point to fraud or other suspect conduct on the part of Kengott. And, "there is no evidence that Ken is undercapitalized, fails to pay dividends to shareholders or that Mr. Kengott is siphoning corporate funds. Nor is there evidence of an absence of corporate records or the non-functioning of Ken's other officers." (Ken Mem at 9.)

In its opposition to this motion, Plaintiff fails to advance any evidence that this Court should pierce the corporate veil or that "piercing the veil will prevent fraud, illegality, injustice, a contravention of public policy, or prevent the corporation from shielding someone from criminal liability." Manville Sales, 917 F.2d at 552. This Court grants Defendant Kengott's motion for summary judgment on liability under 35 U.S.C. § 271 [*27] (a).

II. KEN'S MOTION FOR RECONSIDERATION OF THE NOVEMBER 28, 2000 OPINION AND ORDER

Ken's seeks for this Court to reconsider its November 2000 Opinion, SDS USA, Inc. v. Ken Specialties, Inc., 122 F. Supp. 2d 533 (D.N.J. 2000), citing three major flaws: First, Ken says that in discussing best mode, the November 2000 Opinion incorrectly identified the date of SDS' Certificate of Correction as 1997, when the correct date was November 1999 after the original lawsuit had been filed. In doing so, Ken says that this Court misapplied the Federal Circuit's decision in Southwest Software, Inc. v. Harlequin, Inc., 226 F.3d 1280 (Fed. Cir. 2000).

Second, Ken complains that when discussing obviousness, the November 2000 Opinion failed to analyze the effects of Japanese Utility Patent 62-181835 (the Japan '835 patent"). Ken submitted a late supplemental motion discussing the Japan '835 patent,

along with unopposed expert testimony supporting the motion. At a minimum, Ken seeks reconsideration that in light of Japan '835 patent, there is a genuine issue of material fact as to whether '919 patent is invalid.

Finally, Ken argues that for the issue of patent [*28] infringement, this Court overlooked evidence on the reverse doctrine of equivalents pertaining to the '919 patent's requirement of "at least one elongate member."

A. Standard for Reconsideration

[HN23] "A party seeking reconsideration must show more than a disagreement with the Court's decision, and 'recapitulation of the cases and arguments considered by the court before rendering its original decision fails to carry the moving party's burden.'" *G-69 v. Degnan*, 748 F. Supp. 274, 275 (D.N.J. 1990) (quoting *Carteret Savings Bank, F.A. v. Shushan*, 721 F. Supp. 705, 709 (D.N.J. 1989), appeal dismissed, 919 F.2d 225 (3rd Cir. 1992)). Such motions will only be granted where (1) an intervening change in the law has occurred, (2) new evidence not previously available has emerged, or (3) the need to correct a clear error of law or prevent a manifest injustice arises. *North River Ins. Co. v. CIGNA Reinsurance Co.*, 52 F.3d 1194, 1218 (3d Cir. 1995). Because reconsideration of a judgment after its entry is an extraordinary remedy, requests pursuant to these rules are to be granted "sparingly," *Maldonado v. Lucca*, 636 F. Supp. 621 (D.N.J. 1986), [*29] and only when "dispositive factual matters or controlling decisions of law" were brought to the court's attention, but not considered. *Pelham v. United States*, 661 F. Supp. 1063, 1065 (D.N.J. 1987).

B. Discussion

1. Reconsideration of Best Mode

With respect to Ken's motion for reconsideration regarding this Court's treatment of its best mode defense, this Court notes that it has considered the merits of Ken's arguments and still denies the motion for the reasons stated in this Court's later discussion of Ken's motion for summary judgment on its best mode defense. See discussion *infra* Part V.

2. Reconsideration of Obviousness

Ken also seeks reconsideration on the Court's finding on obviousness. On Nov. 2, 2000, while the initial obviousness motion was pending, Ken came into possession of a prior art reference, Japanese Utility Patent 2-181835 (the "Japan '835 Patent"), which was published on August 10, 1987, and is titled "Workpiece Bending Machine." On Nov. 7, 2000, Ken filed a motion to submit a supplemental memorandum on the issue of obviousness which was not opposed. n3 Ken also filed a declaration from its expert, Dr. Michael Therrien,

demonstrating [*30] that the 'Japan '835 patent rendered each claim of the '919 patent obvious. Ken essentially argues that the Court overlooked this relevant evidence in its consideration of the obviousness motion within the November 2000 Opinion.

n3 This Court addresses this motion later in this opinion. See discussion *infra* Part VII.

This Court concedes that it overlooked the supplemental evidence that Ken submitted late with respect to the issue of obviousness. As with best mode, the merits of the obviousness defense will be discussed later in the Opinion when addressing Ken's second motion for summary judgment on best mode and obviousness. See discussion *infra* Part V. For the reasons stated in that discussion, the motion for reconsideration is denied.

3. Reconsideration of Patent Infringement

On August 3, 2000, this Court issued an Opinion and Order which detailed a claim construction analysis of contested limitations of the '919 patent. The parties then submitted supplemental and reply memoranda on the issue [*31] of infringement in light of this decision. In these papers, Ken set forth a reverse doctrine of equivalents doctrine argument concerning the '919 patent's one bending pin embodiment. Ken now moves for reconsideration on the grounds that this Court overlooked this argument in its November 2000 Opinion. This Court will now address this grounds on the merits.

a. The Law of Reverse Doctrine of Equivalents

[HN24] The reverse doctrine of equivalents is "an equitable doctrine invoked in applying properly construed claims to an accused device." *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1581 (Fed. Cir. 1991). Under this doctrine, an accused article can avoid literal infringement "even if it is within the literal words of the claim, if it is 'so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way.'" *Id.* (quoting *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 608-09, 70 S. Ct. 854, 856, 94 L. Ed. 1097 (1950)) (emphasis added). The question of non-infringement under the reverse doctrine of equivalents is one of fact. *SRI International v. Matsushita Electric Corp.*, 775 F.2d 1107, 1125 (Fed. Cir. 1985). [*32] The doctrine requires both (1) apparent literal infringement of the words of the claims, and (2) that the accused device must be sufficiently different from that which is patented such that despite the apparent literal infringement, the

claims are interpreted to negate infringement. Scripps, 927 F.2d at 1581.

b. Application of Doctrine

Ken argues that the '919 patent is for an elongate member that can only bend in one direction in an automated process whereas the accused system utilizes one bending pin that can bend in both directions. (Kengott Decl. P2-5.) As described by Ken, for folding in two directions, the '919 patent requires a second bending pin (i.e. elongate member). Ken refers to the specification which states:

If a need exists to fold a predetermined unit of the cutting blade in a direction opposite that which was described above, an operation of the transfer roller stops, and at the same time the other folding member falls and moves, and then the same steps as discussed above, are repeated.

'919 patent, Col. 6, lines 8-13. If there is only one bending pin, there is no way to bend in both directions in an automated process. As explained [*33] at the Markman hearing and in the Kengott Declaration, for a single bending pin (elongate member) to bend in two directions in the '919 patent, the system would have to be shut down, the gears removed, reversed and replaced and the elongate member would have to be reversed, and then the machine would have to be turned back on. (Kengott Decl., P 4.)

SDS argues that Ken is attempting to construe "at least one" as "only one." According to SDS, nothing in the construed claims limits bending to one direction, and such an overly narrow construction is not warranted. n4

n4 However, it appears that in arguing for an application of the reverse doctrine of equivalents, Ken does not argue that the '919 patent requires only one elongate member. Rather, it argues that if one pin is used in the patented invention, this would only provide for bending in one direction. And, unlike the patented invention, the accused product is able to bend in two directions with its one pin in one automated process.

As Ken argues, based [*34] on the evidence before the Court at this time, it appears that the '919 patent does not disclose any way in which one bending pin can bend in opposite directions in one automated process. Rather, the '919 patent provides that a second pin is required for such operation. (Kengott Decl. P 2-6.) Nevertheless, this distinction in the accused product -- that one pin can be used for bending in two directions in one automated

process -- is not a change that is "*so far in principle*" from the patent "that it performs the same or a similar function in a *substantially different way*." Scripps, 927 F.2d at 1581 (emphasis added). This Court determines that it would be not be inequitable to find substantive infringement here. Furthermore, this Court notes that this [HN25] doctrine is only applied in the rarest of circumstances. See SRI, 775 F.2d at 1124, n.19 ("[A] defense based on the reverse doctrine of equivalents is rarely offered."); Caterpillar Tractor Co. v. Berco, 714 F.2d 1110, 1115, n. 3 (Fed. Cir. 1983) ("It is possible, of course, for a claim to be literally but not actually infringed, where, for example, a claim may 'read on' a structure [*35] having no relation to the invention. Instances are rare.")(citation omitted). Consequently, Ken's motion for reconsideration on the issue of patent infringement is denied.

III. SDS' MOTION TO DISMISS KEN'S FIRST COUNTERCLAIM PURSUANT TO RULE 12(B)(1)

In its first counterclaim, Ken seeks a declaratory judgment that its new "Split-Pin" machine does not infringe the '919 patent. (Ans. to Third Am. Compl., 11-12.) SDS moves to dismiss Ken's First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1) for lack of subject matter jurisdiction. This Court grants this motion for the following reasons.

A. Facts and Procedural Background

On June 14, 2000 n5, SDS learned n6 during a deposition of defendant Kengott that Ken expected to sell a new generation of its bending device which included a "split pin bending mechanism." ("Split-Pin machine") (Gilman Decl. Ex. B at Ex. 1; Kengott Dep. at 455.) Mr. Kengott testified that he had not yet seen the device, and had not told any of his customers about it. (Id. at 455-56.) However, he was able to sketch what he believed the mechanism to look like from conversations he had had about it in May of 2000. Over the next few months, SDS attempted [*36] to learn about the design of this machine, but was rebuffed by Ken. (See id. at Ex. 2.) In a June 30, 2000 letter, Ken advised that the "new design is not accused of infringement, has not been sold, and is not relevant to any issues regarding infringement of the old design." (Id. at Ex. 2.) In a July 5, 2000 letter, Ken stated to SDS:

We do not agree that it is defendants' obligation to provide documentation regarding systems which are not being accused of infringement and which have not yet been sold. It is SDS's responsibility to conduct an analysis and determine whether it has a good faith basis to accuse Ken of infringing. It is not for Ken to provide

the documents so that SDS can decide later whether or not to accuse a particular device of infringing its patent.

(Id.)

n5 This deposition took place two weeks before the close of discovery.

n6 It is disputed whether counsel for SDS came across this information inadvertently or whether SDS was aware of the Split-Pin machine and its design.

[*37]

On August 28, 2000, Ken filed a motion for summary judgment of non-infringement with respect to the Split-Pin machine. n7 Thereafter, Ken filed an answer to the Third Amended Complaint which included its First counterclaim seeking a declaratory judgment of noninfringement as to the Split-Pin machine. SDS then filed a motion to dismiss Ken's counterclaim which this Court now considers.

n7 In an August 31, 2001 letter, SDS requested that the motion filed by Ken be stricken by the Court with prejudice and Ken responded with its position in its September 6, 2000 letter.

This Court notes that it concluded in its November 21, 2000 Opinion that "this Court does not have jurisdiction to hear Ken's motion for [summary judgment] based on the [non-infringement] of the "Split-Pin" Multi Bender machine." (November 2000 Opinion at 33.)

B. Analysis

Ken's first counterclaim is brought pursuant to the Declaratory Judgment Act ("DJA"), 28 U.S.C. § 2201. [HN26] For a district court to have jurisdiction [*38] over a declaratory judgment action regarding the infringement of U.S. patents pursuant to the DJA, there must be an "actual controversy." See Aetna Life Ins. Co. v. Haworth, 300 U.S. 227, 239-41, 57 S. Ct. 461, 463-64, 81 L. Ed. 617 (1937).

[HN27] For there to be an "actual controversy," there must be both "(1) an explicit threat or other action by the patentee, which creates a reasonable apprehension on the part of the declaratory plaintiff that it will face an infringement suit, and (2) present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity." BP Chem. Ltd. v Union

Carbide Corp., 4 F.3d 975, 978 (Fed Cir. 1993)(citation omitted)(emphasis added). As the claimant, Ken has the burden of satisfying both prongs of the test. Jervis B. Webb Co. v. Southern Sys., Inc., 742 F.2d 1388, 1399 (Fed. Cir. 1984). The determination of a "reasonable apprehension" of infringement suit is based upon an objective standard directed to whether the conduct of the patent owner objectively creates such apprehension of suit. Phillips Plastics v. Kato Hatsujou, K.K., 57 F.3d 1051, 1053 (Fed. Cir. 1995). [*39] The Federal Circuit has advised:

In light of the subtleties in lawyer language, however, [HN28] the courts have not required an express infringement charge When the defendant's conduct, including its statements, falls short of an express charge, one must consider the "totality of the circumstances" in determining whether that conduct meets the first prong of the test.

Arrowhead Indus. Water Inc. v. Ecolochem, Inc., 846 F.2d 731, 736 (Fed. Cir. 1988)(citation omitted).

[HN29] In the patent context, the purpose of the DJA is "to protect threatened parties, not to drag a non-threatening patentee into court." Shell Oil Co. v. Amoco Corp., 970 F.2d 885, 889 (Fed. Cir. 1992). Even when an actual controversy is found, a court's exercise of declaratory judgment jurisdiction is discretionary. Spectronics Corp. v. H.B. Fuller Co., 940 F.2d 631, 634 (Fed. Cir. 1991).

1. Was There Reasonable Apprehension?

Ken argues that it had reasonable apprehension that it would face an infringement suit with respect to the Split-Pin Machine for the following reasons: (1) SDS' discovery of the machine through the Kengott deposition and the fact [*40] that it never altered its pleadings, web site or correspondence after this discovery; (2) the fact that SDS' continuing information to the public is that *all* MultiBender products are accused of infringement; and (3) the grant of costs by the Court to Ken because of SDS' assertion of infringement claims regarding the '276 and '750 patents and its later withdrawal of them.

Ken argues that SDS conducted discovery of the Split-Pin machine which included the Kengott deposition. According to Ken, SDS knew of the Split-Pin machine before the deposition and had the opportunity to conduct discovery during the deposition. Ken contends that the "sketch" that Kengott drew was a "precise sketch" of the split pin design of the machine. (See Gilman Decl., Ex. F.) n8

n8 Ken also argues that because SDS refused to comply with requests to give Ken a copy of the sketch, a negative inference should be drawn pursuant to Fed. R. Civ. P. 37(c). This Court finds it irrelevant that SDS did not initially turn over a copy of the sketch. Kengott was Ken's witness and Kengott drew the sketch from memory; this Court does not find it reasonable for Ken to argue that it was prejudiced by SDS' refusal to turn over that particular sketch when he could redraw it. Regardless, SDS ultimately made the sketch part of the record in documents in support of their reply brief with respect to this motion. (See Gilman Decl., Ex. F.)

[*41]

However, even a "precise sketch" from a person who has not seen the machine before is not sufficient to claim that SDS conducted sufficient discovery to impute a charge of infringement to Ken and raise reasonable apprehension of an infringement suit. Further, it is apparent from correspondence between the parties that SDS' attempts to obtain more information on the Split-Pin machine were fruitless. (See Gilman Cert., Ex. B, Ex. 2 and Gilman Decl. P 7.) As SDS argues, [HN30] a single rough sketch provided during deposition testimony is not sufficient evidence of a conflict that was real and immediate to the level that it would be considered "extra-judicial patent enforcement." Arrowhead Indus., 846 F.2d at 734-35; West Interactive Corp. v. First Data Resources, Inc., 972 F.2d 1295, 1298 (Fed. Cir. 1992) (alleged charges of infringement and fact that defendant patent-owner had filed suits against others was 'more akin to jawboning ... than to threatening litigation').

Further suggesting Ken's lack of reasonable apprehension are Ken's statements in letters immediately after the June 14, 2000 deposition where Ken conceded that the Split-Pin was "not part of [*42] this case" when refusing to provide SDS more information: "the new design is not accused of infringement, has not been sold and is not relevant to any issues regarding infringement of the old design." (Gilman Decl. Ex. B, at Ex. 2; June 30, 2000 Letter fr. Denenberg to Chau.) Ken even placed a public notice that there were "absolutely no patent disputes in U.S. or anywhere on new generation automated benders." (Gilman Decl. Ex. D.) Immediately before SDS was filing its reply with respect to this motion (in November 2000), Ken issued a press release:

This unique and innovative bending technology is not the subject of any patent disputes in the United States or in

Korea, and currently has a "Patent Pending" status in both countries.

(Gilman Sec. Decl. Ex. E.)

Ken argues that SDS' original lawsuit alleging infringement of the '919 patent has "cast a cloud" over the whole Multi-Bender line of products. (Denenberg Decl. Ex. 42.) This cloud, in Ken's view, sends a clear message that *all* Multi-Bender products are accused of infringement. In support of this theory, Ken refers to SDS' and Adam's letters, press releases and web site warning customers that all MultiBender [*43] products are accused of infringement. (Kengott Decl. Ex. 2-34.) However, as SDS points out, none of these documents constitutes proof of reasonable apprehension with regard to the Split-Pin machine as the majority are dated before April 2000 n9. The documents dated post-April 2000 would not provoke reasonable apprehension by Ken. Exhibit 17 is from May 2000 but only that the SDS' "Easybender" is "patented." (Kengott Decl., Ex. 17.) Exhibits 19 and 31 are the identical press release from a Adams Technologies website describing the outcome of a motion for summary judgment in the present case; this press release does not state that all Multi-Bender products are accused of infringement nor does it mention specifically the Split-Pin machine. (Kengott Decl., Ex. 19 & 31.)

n9 According to Ken, the "Split Pin Bending System" has been installed in Multi-Benders since April 2000.

Last, Ken's argument that this Court's award of fees to Ken pursuant to Fed. R. Civ. P. 41 evidenced SDS' bad faith is weak. In January 1999, [*44] SDS originally commenced this suit under two patents, U.S. Patent Nos. 5,749,276 ("276 patent") and 5,787,750 ("750 patent"). After amending the action to include the '919 patent, SDS attempted to "withdraw" by amendment the claims based on the '276 and '750 patents. This Court treated this as a motion to dismiss with prejudice, granting costs to Ken for having to defend the claims. Ken says that these withdrawn claims were "frivolous," and caused it to have reasonable apprehension that its new Split-Pin machine would be accused of infringement. It is clear from the record that Magistrate Judge Pisano did not make a finding of bad faith on the part of SDS. Rather, he responded to the request by Ken,

THE COURT: you make the argument that I should sanction, in effect, I should effect the plaintiff for not making a legitimate investigation for filing what you

would contend would be a frivolous lawsuit, and I don't know that I could do that without having a full evidentiary hearing.

(Gilman Sec. Decl., Ex. K at 18-19.)

This Court finds that the totality of the circumstances does not evidence a reasonable apprehension of patent infringement suit by Ken. Rather, the recent [*45] Ken press releases about the Split-Pin machine and the letters from Ken's counsel in response to SDS' requests for information evidence that Ken did not suffer apprehension of patent infringement.

2. Was there "present activity"?

As discussed, Ken must also meet the second prong of "present activity" to meet the Declaratory Judgment Act's requirement of an "actual controversy." n10 However, because the "reasonable apprehension" prong has not been met, it is unnecessary to address this prong as both prongs must be met to have an "actual controversy" under the DJA. While the Court notes that Ken has provided little evidence of activity subject to an infringement charge or meaningful preparation for such activity, it does not determine this issue.

n10 [HN31] In order to establish the "present activity" prong, Plaintiff must establish "a true interest to be protected by the declaratory judgment." Arrowhead Indus., 846 F.2d at 736. To do this, plaintiff "must be engaged in an actual making, selling, or using activity subject to an infringement charge or must have made meaningful preparation for such activity." Id. (citations omitted). The determination of whether plaintiff's ability and intention to undertake potentially infringing activity constitutes sufficient preparation "is a question of degree to be resolved on a case-by-case basis." Id. (citing Maryland Casualty Co. v. Pacific Coal & Oil Co., 312 U.S. 270, 273 61 S. Ct. 510, 512, 85 L. Ed. 826 (1941); Jervis B. Webb., 742 F.2d at 1399.

[*46]

3. Even if There Were an "Actual Controversy," this Court May Dismiss on Alternative Grounds.

Even if there were an actual controversy, an alternative basis for dismissing Ken's First Counterclaim is that the investment of judicial time and resources is simply not warranted, especially at this late stage of litigation. [HN32] The Court, using its discretion, may dismiss such a counterclaim for those reasons. Spectronics, 940 F.2d at 634; Minnesota Min. & Mfg.

Co. v. Norton Co., 929 F.2d 670, 672-73 (Fed. Cir. 1991) ("The reason for giving this discretion to the district court is to enable the court to make a reasoned judgment whether the investment of judicial time and resources in a declaratory action will prove worthwhile in resolving a justiciable dispute.") Discovery was completed in June 2000, and summary judgment motions are pending. As SDS argues, to interject a new product into this lawsuit would render motions for summary judgment already under consideration by this Court moot. Also, discovery may have to be reopened to allow SDS to take discovery with respect to the new Split-Pin machine. This factor weighs against allowing the counterclaim [*47] to go forward.

C. Conclusion

SDS' motion to dismiss Ken's First Counterclaim is granted because of lack of subject matter jurisdiction pursuant to the DJA. n11

n11 This Court recognizes that SDS further supports its motion by arguing that Ken did not have leave to add its new counterclaims. However, it is unnecessary to address this argument because the motion has been granted on the grounds already discussed.

IV. DEFENDANTS' MOTION FOR SUMMARY JUDGMENT FINDING THAT THE '919 PATENT IS INVALID DUE TO ANTICIPATION UNDER 35 U.S.C. § 102.

Defendants move for summary judgment finding that the '919 patent is invalid for being anticipated under 35 U.S.C. § 102 by Japanese Utility Patent 62-181835 (the "Japan '835 Patent").

A. Standard for Anticipation

[HN33] To anticipate a patent claim under 35 U.S.C. § 102, *all of the elements of the claim must be disclosed to a person of ordinary skill in the art* "either expressly or inherently" [*48] in a single prior art reference. Celeritas Techs., Ltd. v. Rockwell Int'l Corp., 150 F.3d 1354, 1361 (Fed. Cir. 1988); Advanced Display Systems Inc. v. Kent State University, 212 F.3d 1272, 1282 (Fed. Cir. 2000). There is no requirement that the anticipatory reference be either the same or a related art. See *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997).

[HN34] The determination of anticipation of a patent is a question of fact. *Scripps*, 927 F.2d at 1576 (citation omitted).

To make such finding on summary judgment, the court must determine that no facts material to the question are disputed; or that even if all material factual inferences are drawn in favor of the non-movant, there is no reasonable basis on which the non-movant can prevail.

Id. (citation omitted).

B. Analysis

The Japan '835 Patent was published on August 10, 1987, and is titled "Workpiece Bending Machine." It is undisputed that the Japan '835 Patent was published more than a year before the '919 patent's filing date of June 1995. The issue here is whether the Japan '835 Patent discloses each and every element of claims [*49] 1, 6, 7, 8, 9, 11, and 12 of the '919 patent.

Ken argues that the "transfer of ribbon stock", "rotary assembly", "at least one elongate member", and the "arcuate motion" elements of claim I are anticipated. Further, Ken conducts an analysis of the additional elements of claims 2 n12, 6, 7, 8, 9, 10, 11, 12. After its review, this Court finds it necessary to discuss only the "arcuate motion relative to said guide" element in order to deny Ken's motion for summary judgment because of its determination that there remains an issue of fact as to that element.

n12 Ken argues that Claim 2 is anticipated by the Japan '835 Patent although it also believes that this claim has no disclosure in the '919 patent.

1. "Arcuate Motion Relative to Said Guide"

As stated, each and every independent claim of the '919 patent (Claim 1 directed to a folding apparatus, Claim 8 directed to a method of folding, and Claim 12 directed to a system) requires "arcuate motion relative to said guide." The element appears in Claim 1 in [*50] the following context:

said rotary assembly configured for *arcuate motion relative to said guide*, from a first position toward at least one second position to fold a portion of said ribbon stock by said elongate member.

Claim 1, '919 patent (emphasis added).

The element appears in Claim 8 as:

rotating said rotary assembly in an *arcuate motion relative to said guide* from a first position toward at least one second position to fold a portion of ribbon stock by said elongate member.

Claim 8, '919 patent (emphasis added).

In Claim 12, it appears as:

said rotary assembly configured for *arcuate motion relative to said guide* to move said elongate member integrally with both first and second rotary bodies from a first position toward at least one second position to fold a portion of said ribbon stock by said elongate member.

Claim 12, '919 patent (emphasis added).

Ken argues that the Japan '835 Patent has a drive section that turns the elongate member (bending tool 5) along an outer peripheral surface of a core shaft 4 by 180[degrees] to bend the workpiece W. (See Therrien Decl. P29.) The rotary bodies 41 and 42 are a part of [*51] the drive section in the Japan '835 Patent. (*Id.*) Thus, the rotary bodies must be configured for arcuate motion relative to the guide, from a first position to a second position -- namely a rotation of 180[degrees] -- to fold a portion of the workpiece by the elongate member (bending tool), as explained by the Japan '835 Patent. Accordingly, the Japan '835 Patent also anticipates this element of claim 1 of the '919 patent, says Ken.

SDS says that the Japan '835 Patent does not disclose claims where the "arcuate motion [is] relative to said guide," so Ken's anticipation defense fails. Arguing that construction of this phrase should be consistent with the patent specification, SDS refers to the portion of the specification appearing at column 5, lines 52-61 of the '919 patent, which reads:

When the revolving bodies 320a and 320b are rotated, the folding member 330 is also rotated. That is, the folding member 330 is rotated and moved around a periphery of the fixing body 313 along the guide slot 316b from any one side of the fixing body 313 for the folding operation shown in Fig. 5. At this time, the moved folding member 330 contacts with the cutting blade which extends [*52] through the guiding entrance 311, thereby the cutting blade 500 is naturally folded by a rotating force of the folding member 330 along a slant face 312 of the fixing body 313

Figure 5 of the '919 patent clearly illustrates the arc-like path of the folding member 330 around the periphery of the guide. The cutting blade or ribbon stock is folded as it extends through the guiding entrance 311. According to SDS, "arcuate motion relative to said guide" should be

construed in accordance with the specification to refer to the elongate member (folding member 330) being rotated and moved around the periphery of the fixing body 313 (i.e. the "guide") from one side to another to fold the ribbon stock extending through the guiding entrance 311. Also, SDS refers to Dr. Tricamo's n13 declaration that in the Japan '835 Patent, the workpiece is advanced by means of a clamping mechanism and a cylinder which grips the workpiece and advances the workpiece a predetermined distance. It then releases the workpiece so that it can go back and repeat the process. (Tricamo Decl. P7.) The Japan '835 Patent provides two separate bending mechanisms, each of which features a core shaft 4, and a bending [*53] fixture 5, and each of which is designed to make a fold in only one direction, either clockwise or counterclockwise. The workpiece is clamped within a transverse feeder 3 (Tricamo Decl. PP9, 10). To create the zigzagging radiator design, the workpiece must be alternately moved between the two bending mechanisms. (Id. P 11).

n13 Dr. Tricamo is not an expert in die cutting and die making, but the Court designated him as an expert on metal forming and bending. See SDS U.S.A. Inc. v. Ken Specialties Inc., 107 F. Supp. 2d 574, 580 (D.N.J. 2000). According to SDS, the Japan '835 Patent has nothing to do with die cutting or die making, but is within the broader technological field of metal forming and bending. As Ken's expert, Dr. Therrien acknowledges, the device shown in the Japan '835 Patent is not involved with steel rule, but rather metallic fins used with a radiator. (Therrien Decl. P14.) The device in the Japan '835 Patent is directed to a workpiece bending device for bending a band-shaped workpiece into a radiator or other heat-dissipating body. (Tricamo Decl. P4.) The material being bent is hollow for carrying a liquid or gas. (Id.). Thus, as Dr. Tricamo further explains, the Japanese Publication is not directed to a device used in the die-cutting and die-making field, since it does not bend material to be used as a die, since dies are made from solid as opposed to hollow materials.

[*54]

The actual bending of the workpiece occurs by virtue of the workpiece being positioned within the small gap that exists between the core shaft 4 and the corresponding bending fixture 5. The bending fixture 5 is then rotated in an arc-like path around the corresponding core shaft to effectuate bending. (Tricamo Decl. PP9-12). Thus, the Japan '835 Patent does not disclose or teach bending a workpiece around the periphery of the

transverse feeder 3, or any bend other than around the core shaft 4. (Id. at PP13-15, 17).

According to SDS, to the extent the transverse feeder 3 in the Japan '835 Patent corresponds to the guide in the claims of the '919 Patent, and to the extent that the bending fixtures 5 are placed in "arcuate motion," the bending fixtures 5 are not placed in "arcuate motion relative to said guide" (i.e. the transverse feeder 3). On the contrary, says SDS, in the Japan '835 Patent, the bending fixture 5 is in "arcuate motion relative to" the core shaft 4, which is the device around which the bending takes place. Accordingly, when the claim element "arcuate motion relative to said guide" is properly construed to require that the elongate member be rotated and moved around [*55] a periphery of the guide, such element is missing from the Japan '835 Patent.

a. Claim Construction of the Element

It is apparent that the issue here is what "arcuate motion relative to" means in the context of the present patent. [HN35] The construction of patent claims is a matter of law exclusively for the Court. *Markman v. Westview Instruments*, 52 F.3d 967, 976-79 (Fed. Cir. 1995). This Court recently discussed the standards for claim construction:

[HN36] The court must first look to the "intrinsic evidence," which consists of the patent claims, the specification, and the prosecution history if in evidence. "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms. See *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999). Of course, "claim construction is not philosophy ... [it] is firmly [*56] anchored in reality by the understanding of those of ordinary skill in the art." *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356 (Fed. Cir. 1999). And although the prosecution history can and should be used to understand the language used in the claims, it may not be used to "enlarge, diminish, or vary" the limitations in the claims. *Markman*, 52 F.3d at 979 (citation omitted).

[HN37] "In most situations, an analysis of intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence," such as expert testimony, treatises and dictionaries, and articles. *Vitronics*, 90 F.3d at 1583. Accordingly, where the patent documents are

unambiguous, expert testimony is entitled to no weight. See *id.* (emphasis added). Prior art may serve as a guide to the meaning of a disputed term and, particularly, as a time-saving demonstration of how a disputed term is used by those skilled in the art. See *id.* at 1584. Finally, "opinion testimony on claim construction should be treated with the utmost caution," because such testimony "amounts to no more than legal opinion [*57] -- it is precisely the process of construction that the court must undertake." *Id.* at 1585 (citation omitted).

Bristol-Myers Squibb Co. v. Immunex Corp., 86 F. Supp. 2d 447, 448-49 (D.N.J. 2000).

[HN38] A claim must be read as a whole, rather than element by element. See *General Foods Corp. v. Studiengesellschaft Kohle mb H*, 972 F.2d 1272, 1274 (Fed. Cir. 1992); *Texas Instruments, Inc. v. U.S. Intern. Trade Com'n*, 846 F.2d 1369, 1371 (Fed. Cir. 1988). The "language of the claim frames and ultimately resolves all issue of claim interpretation." *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997). The Court may not rewrite claims. *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) ("Courts do not rewrite claims; instead we give effect to the terms chosen by the patentee."); *Texas Instruments v. U.S. Intern. Trade Com'n.*, 988 F.2d 1165, 1171 (Fed. Cir. 1993) ("courts can neither broaden nor narrow claims to give the patentee something different than what he has set forth.") (citation omitted).

As discussed, the Court should also look to [*58] the patent specification for guidance. [HN39] "Claims must be read in view of the specification, of which they are a part The description may act as a sort of dictionary, which explains the invention and may define terms used in the claims." *Markman*, 52 F.3d at 979 (citations omitted). "The specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). A construction that stays true to the claim language and the description of the invention will be the correct construction. See *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.*, 112 F.3d 1137, 1142-43 (Fed. Cir. 1997). However, "particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments." *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1346 (Fed. Cir. 1999), quoting *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1054 (Fed. Cir. 1994); see also *Transmatic, Inc. v. Gulton Industries, Inc.*, 53 F.3d 1270, 1277 (Fed. Cir. 1995). [*59] Of course, a patentee is free to define a claim term differently from its ordinary meaning, but any

special definition must be "clearly stated in the patent specification or file history." *Vitronics*, 90 F.3d at 1582.

Finally, [HN40] "although technical treatises and dictionaries fall within the category of extrinsic evidence, ... they are worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d at 1584, n. 6 (emphasis added).

This Court is convinced that the "arcuate motion relative to said guide" element corresponds with the language of the specification that describes that "the folding member [i.e. the elongate member] is rotated and moved around a periphery of the fixing body [i.e. the guide]" as the "folding member contacts with the cutting blade which extends through the guiding entrance." '919 patent, col. 5, lns. 53-59. Ken does not present evidence [*60] to the contrary. And, as the Federal Circuit has declared: [HN41] "The specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Vitronics*, 90 F.3d at 1582.

Upon review of the evidence, it is apparent that whereas the '919 patent describes a scheme in which ribbon stock is held by a guide, and the elongate member is rotated around a periphery of the guide, the Japan '835 Patent describes something else: separate stationary core shafts 4, with bending fixtures 5 configured for arcuate motion "relative" to those core shafts -- not "relative" to a guide.

[HN42] Although Ken presents evidence of other claims in the '919 patent being anticipated, even if one element of one claim is not anticipated, as has been demonstrated above with regard to the "arcuate motion relative to said guide," then Ken's anticipation defense fails, and the Court need not examine the remaining claims. See *Advanced Display*, 212 F.3d at 1282 (holding that if even one element of one claim does not appear in the prior art reference, there can be no anticipation defense). This Court denies [*61] Defendants' motion for summary judgment finding that '919 patent is invalid for being anticipated.

V. DEFENDANTS' MOTION FOR SUMMARY JUDGMENT ON THE ISSUES OF BEST MODE AND OBVIOUSNESS; SDS CROSS-MOTION ON BEST MODE.

Defendants move for summary judgment on best mode and obviousness, and SDS cross-moves for

summary judgment on best mode. Ken alleges a best mode violation in that SDS did not disclose its best mode for the "cutter," and separately claims that the Japan '835 patent renders the '919 obvious. SDS cross-moves for summary judgment that it did not have a best mode at the time of filing, so Ken's best mode defense should be dismissed. For the following reasons, Ken's motion is denied. SDS' cross-motion is granted in part and denied in part.

DISCUSSION

A. Obviousness

Ken first moves for summary judgment that the '919 patent is obvious in light of the Japan '835 Patent.

1. Standard for Obviousness

Under 35 U.S.C. § 103:

[HN43] [a] patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time [*62] the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. § 103; see also *In Re O'Farrell*, 853 F.2d 894, 902 (Fed. Cir. 1988). [HN44] Obviousness is ultimately a question of law that rests upon underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective considerations of non-obviousness. *Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, 189 F.3d 1370, 1376 (Fed. Cir. 1999)(citations omitted). "Because an issued patent is presumed valid, there must be clear and convincing evidence supporting the obviousness determination." *SIBIA Neurosciences, Inc. v Cadus Pharm. Corp.*, 225 F.3d 1349, 1355 (Fed. Cir. 2000) (citation omitted).

[HN45] In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. *Kahn v. General Motors Corp.*, 135 F.3d 1472, 1480 (Fed. Cir. 1988) (citation omitted). As the Federal Circuit has explained, [HN46] a determination [*63] of obviousness requires a comparison of the claims as construed:

We observe in passing that, not unlike a determination of infringement, a determination of anticipation, as well as obviousness, involves two steps. First is construing the claim, a question of law for the court, followed by, in the case of anticipation or obviousness, a comparison of the construed claim to the prior art. This comparison process

involves fact-finding, and is for the fact-finder in the first instance.

Key Pharm. Inc. v. Hercon Laboratories Corp., 161 F.3d 709, 714 (Fed. Cir. 1998) (citations omitted).

2. Analysis

Ken seeks summary judgment that Claims 1, 2 and 6-12 of the '919 patent are invalid for obviousness under 35 U.S.C. § 103. It argues that the scope of content of the prior art "includes the Japan '835 Patent." (Ken's Br. at 6.) Second, Ken argues that this Court has found the relevant art is diecutting and diemaking. Ken submits the declaration of Mr. Therrien, an expert in this field who explains that the ordinary level of skill in the art is someone with at least five to seven years in the diecutting and diemaking industry. (Therrien [*64] Decl. P 12.) Next, Ken goes through each claim of the '919 patent and argues that they are rendered obvious by the Japan '835 Patent.

As SDS points out, Ken almost entirely relies on the Japan '835 as the prior art that teaches the key elements of the '919 patent. [HN47] "In appropriate circumstances, a single prior art reference can render a claim obvious However, there must be a showing of a suggestion or motivation to modify the teachings of the reference to the claimed invention in order to support the obviousness conclusion." *SIBIA*, 225 F.3d at 1356 (citations omitted). As discussed, this Court has determined that Ken's anticipation defense was deficient because the Japan '835 patent did not disclose "arcuate motion relative to said guide" which appears in every claim of the '919 patent. As explained earlier, it is apparent that whereas the '919 patent describes a scheme in which ribbon stock is held by a guide, and the elongate member is rotated around a periphery of the guide, the Japan '835 Patent describes separate stationary core shafts 4, with bending fixtures 5 configured for arcuate motion "relative" to those core shafts, not "relative" to a guide or anything [*65] corresponding to it. Ken has not advanced evidence that demonstrates a "suggestion or motivation to modify the teachings of that reference to the claimed invention" with respect to this element. Id. Further, Ken has not pointed to another prior art reference that would supply this element absent from the Japan '835 patent. And, this element is present throughout all of the claims of the '919 patent. It follows that there is a genuine issue of material fact as to whether the Japan '835 patent renders obvious this limitation in the patent.

Another issue is whether the Japan '835 patent is prior art within the meaning of 35 U.S.C. § 103. It is undisputed that the relevant art is diecutting and diemaking. SDS argues that the Japan '835 patent is not analogous art as generally required under patent law. See

In re Clay, 966 F.2d 656, 658 (Fed. Cir. 1992). According to the Federal Circuit:

[HN48] Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field or endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventors endeavor, whether [*66] the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

Id. at 658-59. SDS argues that the Japan '835 Patent has nothing to do with the diecutting and diemaking field. (Carter Decl. PP 15-16; Tricamo Decl. P6). As Mr. Carter and Dr. Tricamo explain, the Japan '835 Patent discloses a device for bending material having an internal bore into a sinusoidal shape with semicircular portions for carrying liquid or gas through a hollow interior. (Carter Decl. P15; Tricamo Decl. P4). In contrast, the present invention is directed to a device for bending ribbon stock into any desired shape. Thus, the "Field Of the Invention" portion of the '919 patent specifically states that, "the present invention relates to a folding system of a cutting blade used in forming a folding line on a sheet matter so that the sheet matter, such as paper or plastic, etc., may be made into a predetermined shape ..." ('919 Patent, Col. 1 Ins. 13-16). SDS also argues that the two patents have different international classifications, which supports the assertion that the Japan '835 Patent is not relevant prior art. The Japan '835 Patent was classified [*67] in International Class B23 P15/26, while the '919 Patent was classified in International Class B21 D5/16. These different classifications constitute further evidence that they are nonanalogous fields. See In re Deminski, 796 F.2d 436, 442 n.3 (Fed. Cir. 1986) (employing classifications of prior art references as one basis for deciding if prior art is relevant). Ken argues that the Japan '853 patent and the '919 patent are used in different fields but the essential function of the two inventions are the same. See Manual of Patent Examination and Procedure at § 904.01 ("[The determination of what arts are analogous] depends upon the necessary essential function or utility of the subject matter covered by the claims, and not upon what is called by the applicant.").

SDS argues that the secondary consideration of commercial success of the patentee and the alleged infringer should be considered in finding for nonobviousness of the invention. See Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1573 (Fed. Cir. 1992). According to SDS, over 300 machines within the scope of the '919 patent have been sold in the U.S. [*68] and abroad. (S. Song. Decl. P. 5.) Moreover, SDS submits that Ken's

complete replacement of its Tsukatani machine with the its infringing product, the MultiBender machine, is evidence of nonobviousness of the patent. (Id. at PP6, 7.)

This Court finds that there are genuine issues of material fact as to whether the Japan '835 patent is prior art within the meaning of § 103 and whether the Japan '835 patent renders obvious the "arcuate motion relative to guide" limitation in the patent. Ken has clearly not met its burden for summary judgment on obviousness and its motion is denied.

B. Best Mode

Ken's first summary judgment motion on best mode focused on SDS' alleged failure to disclose the interchangeability feature and the driving unit arrangement feature in the '919 patent. SDS cross-moved for summary judgment that the '919 patent was not invalid for a best mode violation. In reply, Ken first raised the issue of SDS not being entitled to the 1995 filing date because of the invalidity of the Certificate of Correction which had changed the name of the patent by placing "Korean" before "Patent No. 80607" in place of "Japan" -- thereby, adding a "new matter" relating to the cutter. [*69] In letters to this Court dated September 19 and 21, 2000, Ken argued that the Federal Circuit's recent decision in Southwest Software Inc. v. Harlequin, Inc., 226 F.3d 1280 (Fed. Cir. 2000), restricted SDS to claiming the 1999 filing date.

When addressing Ken's best mode defense in its November 2000 Opinion, this Court erred in applying the wrong date for the issuance of the certificate of correction. The certificate of correction was issued in November 1999 whereas the November 2000 Opinion misconstrues the date of the certificate of correction as November 1997. According to Ken, the issue of timing of the certificate of correction is important because in Southwest Software, the Federal Circuit found a certificate of correction does not have retroactive effect; suits commenced before issuance of certification must be dismissed if the disclosure, without the certificate, violates 35 U.S.C. § 112, P1. Southwest Software, 226 F.3d at 1295-97. This lawsuit was filed in February 1999, and the Certificate did not issue until November 1999. Thus, Ken argues, pursuant to Southwest, the Certificate has no effect and the best [*70] mode was not disclosed in '919 patent. Ken now re-moves and SDS cross-moves for summary judgment with respect to the best mode defense. This Court denies Ken's motion and grants SDS' cross-motion with respect to Claims 1-8, 10 and 11. SDS' motion as to Claims 9 and 11 is denied.

1. Standard for Best Mode

35 U.S.C. § 112, P1 reads:

[HN49] The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

[HN50] To prove that a patent is invalid for failure to disclose best mode requires that (1) the inventors knew of a better mode of carrying out the claimed invention than they disclosed in the specification, and (2) the inventors concealed that better mode. *Chemcast v. Arco Indus. Corp.* 913 F.2d 923, 927-28 (Fed. Cir. 1990). The threshold question is whether the inventor knew at the time of filing of a "best [*71] mode" for practicing his claimed invention. *In re Hayes Microcomputer Prods. Inc. Patent Litig.*, 982 F.2d 1527, 1536 (Fed. Cir. 1992). This inquiry is entirely subjective focusing on the inventor's state of mind at the time of filing. *Id.*; see *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.*, 112 F.3d 1137, 1144 (Fed. Cir. 1997). Only after determining that the inventor had a best mode for practicing, should one proceed to the inquiry of whether the specification adequately disclosed the best mode. *Id.* (emphasis added). Defendant has the burden of proof to show by *clear and convincing evidence* that there has been a best mode violation. *Minco, Inc. v. Combustion Eng'g*, 95 F.3d 1109, 1115 (Fed. Cir. 1996) (emphasis added).

2. Southwest Software Case

As discussed, Ken argues that the certificate of correction (dated November 1999) is irrelevant because the Federal Circuit in Southwest Software held that under the language of 35 U.S.C. § 254, a certificate of correction does not have a retroactive effect, and suits commenced before issuance of the certificate must be dismissed if the [*72] disclosure, without the certificate, violates 35 U.S.C. § 112, P1. It is undisputed that SDS filed its action alleging patent infringement in February of 1999. On June 17, 1999, SDS filed a certificate of correction for the '919 patent; this certificate was issued on November 2, 1999.

SDS argues that a certificate of correction because of an applicant's mistake under 35 U.S.C. § 255 should be treated differently from a certificate of correction because of the Patent & Trademark Office's mistake under 35 U.S.C. § 254. SDS specifically points to the language in 35 U.S.C. § 255 that allows a certificate of correction to issue "if the correction does not involve such changes in the patent as would constitute new matter." 35 U.S.C. § 255. There is no prerequisite banning "new matter" under Section 254. SDS argues then that this Court's earlier finding that the Japan/

Korean name change was not "new matter" is dispositive on the certificate of correction matter. See Nov. 28 Opinion at 20.

This Court finds that the issue here regarding the applicability of the certificate [*73] of correction is a separate issue from Ken's "new matter" argument. As discussed in this Court's November 2000 Opinion, Defendant's "new matter" argument was rejected by this Court in a March 27, 2000 hearing when "the Court found that geographic changes were appropriate matters for certificates of correction, and were not akin to an attempt to broaden the patent claims which would necessitate a reissue application." See November 2000 Opinion at 20. However, that is independent of the issue of whether this certificate of correction would apply retroactively. Moreover, the two statutes employ the identical language: that [HN51] the effect of a patent with a certificate of correction would be "as if the same had been originally issued in such corrected form" "for causes thereafter arising." *Southwest Software*, 226 F.3d at 1296. Further, the Southwest Software Court discounted the holding of *Eagle Iron Works v. McLanahan Corp.*, 429 F.2d 1375 (3d Cir. 1970) in which the Third Circuit applied a Section 255 certificate of correction retroactively. *Southwest Software*, 226 F.3d at 1296-97. Consequently, if the '919 patent fails to disclose [*74] a best mode without the certificate of correction, the patent is invalid because [HN52] a certificate issued after the initiation of a lawsuit cannot be given retroactive effect. n14

n14 Ken has advised the Court by letter dated November 8, 2001 of a recent Federal Circuit decision, *Superior Fireplace v. The Majestic Products Co.*, Nos. 00-1233-1281-1282, 270 F.3d 1358, 2001 U.S. App. LEXIS 23634 (Fed. Cir. November 1, 2001), potentially supporting its argument that the certificate of correction filed by SDS is invalid. Because the Court has determined that the certificate of correction does not apply here pursuant to Southwest Software, it is unnecessary to make a finding as to the applicability of Superior Fireplaces.

3. Was there a best mode violation without a Certificate of Correction?

Because the Certificate of Correction is invalid, the '919 patent is subject to best mode analysis without regard for the certificate. n15

n15 SDS argues first that the 'law-of-the-case' doctrine should operate to dismiss Ken's second motion for summary judgment on best mode. As discussed, the doctrine provides that a court's decision on a matter generally will not be reexamined by that court during the course of litigation. This Court finds that the doctrine is inapplicable here because in deciding the previous motion for summary judgment by Ken, it made an error as to a material fact. Therefore, this Court now reconsiders the motion on the merits.

[*75]

Because the only cutter identified by the patent is the misidentified Japan Patent No. 80607, Ken argues that the Japan Patent No. 80607 does not reveal *any* cutter let alone the *preferred* cutter. According to Ken, this is demonstrated through the fact that the '919 patent expressly states that "the cutting molding unit 100 is applied from Japan Patent No. 80607." '919 patent; col. 2, Ins. 58-63; col. 5, Ins. 6-9. In support of its argument, Ken refers to testimony by Simon Song, SDS' president, Brian Song, the inventor, and Michael Adams, the reseller of SDS' equipment, allegedly stating that the best mode for the cutter was not "conventional." (See Warshavsky Decl. Ex. A at 158, Ins. 10-19; Warshavsky Decl. Ex. B at 162, Ins. 12-20; Warshavsky Decl., Ex. C at 151.)

SDS argues that Ken presents no evidence that the inventor considered the cutter in Korean Patent No. 80607 to be his best mode at the time of filing in 1995. According to SDS, Ken also did not offer any evidence that the inventor considered a particular specialized cutting device in Korean Patent No. 80607 to be the best mode, or that one skilled in the art could have used it. And, as this Court has noted before, [*76] [HN53] commercial embodiments are not equivalent to the best mode of a claimed invention. *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1567 (Fed. Cir. 1996). In SDS' view, Ken's best mode defense relies solely on testimony with respect to whether the EasyBender, which not only cuts, but also notches and miters is "conventional." However, the term conventional has no established meaning in the field, while "being known to one skilled in the art" does have meaning. Further, no time frame is given as to when something was believed to be "conventional."

SDS submits the declaration of Brian Song that he "did not, in 1995, consider one cutting device to be superior over another cutting device in connection with the system that included both my particular bending mechanism and cutting." (Brian Song Decl. P 3.) Ken attacks this evidence by arguing that instead of being

evidence of a lack of best mode, Brian Song's declaration is actually an admission of a best mode violation. Either the inventor did not contemplate a best mode for the cutter, or contemplated the cutter described in Korean Patent No. 80607, according to Ken. Ken further contends that the '919 patent reflects the latter [*77] view because it specifically referenced "Japan" Patent No. 80607. Moreover, Ken says that the Certificate of Correction issued in November 1999, from "Japan" to "Korea" would be unnecessary if the '919 patent allowed "any cutter."

As to Ken's argument that Brian Song's declaration is an admission of a best mode violation, this Court disagrees with Ken's application of the law. If the inventor did not contemplate a best mode for the cutter, there is no best mode violation. See *Young Dental*, 112 F.3d at 1144 ("The purpose of this requirement is to restrain inventors from applying for a patent while at the same time concealing from the public preferred embodiments which the inventor has, in fact, conceived."). As discussed, [HN54] the inquiry for a best mode violation is whether there is clear and convincing evidence that "the inventor both *knew of and concealed* a better mode of carrying out the claimed invention than was set forth in the specification." *Id.* (emphasis added).

In construing the '919 patent, this Court, finding for SDS, ruled that the cutter of the claims includes any cutter. However, just because "any cutter" may fall within the scope of the claims, [*78] does not mean that it satisfies the preferred embodiment of the invention.

Upon reviewing the evidence presented by both sides, this Court finds that there is a genuine and material issue of fact as to whether Brian Song contemplated the Korean Patent No. 80607 as the best mode for the cutter. Ken has failed to present unchallenged clear and compelling evidence that Brian Song contemplated the Korean Patent No. 80607 as the better mode for the invention. This Court recognizes that the '919 patent referred to Japan Patent No. 80607 (which was later corrected to Korean Patent No. 80607). However, this evidence in conjunction with the deposition testimony regarding whether a cutting tool module in Easybender was conventional is not clear and convincing evidence that the inventor knew of a best mode for the cutter in 1995. Brian Song, the inventor, declares that he "did not, in 1995, consider one cutting device to be superior over another cutting device in a system that included both by particular bending mechanism and cutting." (Brian Song Decl. P 3.) However, the Court also finds that Brian Song's declaration alone is not compelling enough to grant SDS' motion for summary judgment with [*79] respect to best mode on this ground. n16 Ken's motion for summary judgment is denied.

n16 Although SDS' motion is denied as to this ground, SDS is granted summary judgment with respect to Claims 1-8, 10-11 on alternative grounds later discussed in this opinion. See discussion *infra* Part V.B.4.

4. Would the Best Mode for a Cutter apply to Claims 1-8 and 10-11?

Ken argues that the best mode defense affects all twelve claims of the '919 Patent. While a "cutter" is only an element of independent claim 12, and the step of "cutting" is only an element of claim 9, Ken argues that a "cutter" is "inherently" claimed in claims 1-8, 10 and 11 none of which mention a cutter or cutting at all.

[HN55] "The best mode requirement is directed to what the applicant regards as the invention, which in turn is measured by the claims." *Engel Indus. v. Lockformer Co.*, 946 F.2d 1528, 1532 (Fed. Cir. 1991); see also *Chemcast*, 913 F.2d at 927 ("The other objective limitation on the extent of the [*80] disclosure required to comply with the best mode requirement is, of course, the scope of the claimed invention."). Unclaimed elements "may also be subject to the [best mode] requirement if they are necessary to implement the claimed invention." *Access Solutions Int'l., Inc. v. Date/Ware Develop., Inc.*, 70 F. Supp. 2d 92, 98 (D.R.I. 1999) (citation omitted) (emphasis added); see also *Chemcast*, 913 F.2d at 928.

However, as this Court has advised: "There are boundaries to this defense ... [HN56] the general rule [is] that a best mode violation exists only where the undisclosed method affects 'how well [the invention] works.'" *Bristol-Myers Squibb Co. v. Boehringer Ingelheim Corp.*, 85 F. Supp. 2d 420, 422-23 (D.N.J. 2000) (citing *Advanced Semiconductor Materials Am., Inc. v. Applied Materials, Inc.*, 922 F. Supp. 1439, 1443 (N.D. Ca. 1996) and *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1567 (Fed. Cir. 1996).)

The Court adopted the definition of "cutter" as defined in the International Association of Diecutting and Diemaking "Glossary of Terms": "A term used to describe a bench tool used to cut steel rule [*81] stock in the manufacture of steel rule dies." 107 F. Supp. 2d at 594.

Ken contends that a "cutter" is central to the invention and refers to portions of this Court's August 3, 2000 Opinion in which it summarized portions of the abstract and specification in its discussion of the term "ribbon stock." Ken asserts that although Claims 1-8, 10, 11 do not explicitly disclose a cutter, the patent discloses

a fully automated system for bending and cutting steel rule and it is clear that the patent requires a cutter to do that.

This Court does not find Ken's argument convincing. As discussed, [HN57] unclaimed elements are subject to best mode when "they are necessary to implement the claimed invention." *Bristol-Myers*, 85 F. Supp. 2d at 422 (citation omitted). This Court finds that cutting is not necessary to implement Claims 1-8, 10 and 11. Rather, as SDS urges, they are directed to particular devices that may be combined with a cutter for it to become commercially saleable. The deposition testimony that Ken sets forth -- of Brian Song, and SDS' expert Robert Carter describing cutting as an aspect of a commercial embodiment of the invention -- is not helpful to establish [*82] that the bending inventions in Claims 1-8, 10-11 are less effective if a cutter is not provided. As stated by the Federal Circuit, [HN58] the best mode requirement "has nothing to do with mass production or with sales to customers having particular requirements." *Christianson v. Colt Indus. Operating Corp.*, 822 F.2d 1544, 1563 (Fed. Cir. 1987), vacated on jurisdictional grounds and remanded, 486 U.S. 800, 108 S. Ct. 2166, 100 L. Ed. 2d 811 (1988).

The Court finds that because claims 1-8, 10 and 11 do not claim a cutter which is unnecessary to carry out those claims, SDS is entitled to summary judgment on best mode defense with respect to them. As to Claims 9 and 12, this Court denies both Ken's and SDS' motions for summary judgment because of the presence of genuine issues of material fact as discussed. See *infra* Part V.B.3.

VI. SDS' MOTION FOR SUMMARY JUDGMENT DISMISSING KEN'S COUNTERCLAIMS FOR UNFAIR COMPETITION

SDS moves for summary judgment against Ken's Second, Third, Fourth and Fifth counterclaims for unfair competition ("Ken's counterclaims"). Ken's Second and Third Counterclaims allege violations of 15 U.S.C. § 1125 [*83] because of representations made by SDS to Ken's customers and the general and relevant purchasing public that Ken's products infringe the '276 patent and '750 patent respectively. (Ans. to Third Am. Compl. at 13-18.) Ken's Fourth Counterclaim alleges a violation of 15 U.S.C. § 1125 because of representations made to Ken's customers and the general and relevant purchasing public that Ken's products infringe '919 patents and that Ken cannot successfully design its products around that patent. (Id. at 18-20.) Ken's Fifth Counterclaim alleges tortious interference with prospective economic advantage for these alleged misrepresentations to Ken's potential customers about the '276, '750 and '919 patents.

(Id. at 20-22.) This Court grants SDS' motion for summary judgment dismissing the Second, Third, Fourth and Fifth Counterclaims.

A. Factual and Procedural Background

On January 11, 1999, SDS originally commenced this action against Ken alleging infringement of the '276 patent and the '750 patent assigned to SDS. On February 16, 1999, the '919 patent, based on a continuation application of the '750 patent, was issued to Brian Song. Thereafter, in February 1999, [*84] SDS amended its complaint to incorporate the '919 patent. In July 1999, SDS notified Ken of its desire to withdraw those portions of its claims regarding infringement of the '750 and '276 patents and file an amended complaint to which Ken refused to consent. SDS then moved for leave to file an amended complaint withdrawing the '276 and '750 patents from the case which the Magistrate Judge granted. The Magistrate Judge also granted Ken's request for costs against SDS for its defense of those claims. This Court affirmed this award of costs against SDS on an appeal of the magistrate's order. See April 10, 2000 Order.

B. Discussion

Ken's counterclaims are based on Section 43 of the Lanham Act, 15 U.S.C. § 1125(a), which provides in relevant part:

[HN59] (1) any person who, on or in connection with any goods or services ... uses in commerce ... any ... false or misleading description of fact, or false or misleading representation of fact, which --

***(B) in commercial advertising or promotion, misrepresents the nature characteristic, qualities or geographic origin of his or her or another persons goods, services or commercial activities, shall be [*85] liable in a civil action by any person who believes that he or she is likely to be damaged by such act.

15 U.S.C. § 1125(a)(1). [HN60] To establish a claim under Section 43(a) of the Lanham Act, Ken must prove:

- 1) False or misleading statements made by SDS as to its product or another's;
- 2) that there is actual deception, or a tendency to deceive a substantial portion of the intended audience;
- 3) that the deception is material in that it is likely to influence purchasing decisions;
- 4) that the advertised goods traveled in interstate commerce;
- 5) that there is a likelihood of injury to Ken in terms of declining sales, loss of good will, etc.

See *Ditri v. Coldwell Banker Residential Affiliates, Inc.*, 954 F.2d 869, 872 (3d Cir. 1992).

[HN61] In order for a claim for unfair competition under Section 43(a) of the Lanham Act to be sustained against a patentee's statements regarding its patent rights, the claimant must show bad faith by the patentee. See *Zenith Electronics Corp. v. Exzec. Inc.*, 182 F.3d 1340, 1353-54 (Fed. Cir. 1999) ("[A] patentee's statements regarding its patent rights are conditionally privileged under [*86] the patent laws, so that such statements are not actionable unless made in bad faith."). This requirement stems from the privileged right of a patentee to notify the public of its patent rights as provided by the patent laws. See 35 U.S.C. § 287.

[HN62] With respect to Ken's claims of tortious interference with prospective economic advantage based on a publication of a patent in the marketplace, such are barred by Federal patent laws under principles of federal preemption unless the complainant can prove that the patentholder acted in bad faith. See *Zenith*, 182 F.3d at 1354; *Hunter-Douglas, Inc. v. Harmonic Design, Inc.*, 153 F.3d 1318, 1336-37 (Fed. Cir. 1998). To sustain its claim, Ken must establish the elements for tortious interference and prove that the alleged "interference" was made in bad faith, not simply incidental to the lawful purpose of enforcing and protecting patent rights.

1. Fourth Counterclaim

This Court notes at the outset that Ken has admitted that "Ken has adduced no evidence that SDS asserted infringement of [the '919 patent]." (See SDS' R. 56 Statement and Ken's Response at No. 3.) Ken has also [*87] failed to provide any evidence in support of its allegation in its Fourth Counterclaim that SDS had made public statements in bad faith with respect to the '919 patent. Consequently, this Court finds that there is no genuine issue of material fact with regard to the Fourth Counterclaim and SDS' motion for summary judgment is granted as to it.

2. Second and Third Counterclaims -- Did SDS have Bad Faith?

Ken alleges that SDS competed unfairly by notifying the public that Ken was infringing the '276 and '750 patents. Ken submits SDS' letters, press releases and website information and alleges that SDS' charges of infringement were also verbal to a number of Ken's customers. (Cobrin Decl. Ex. C.).

Ken also sets forth testimony by Kengott that "a person of ordinary skill in the art of die making and die cutting would conclude that the Multicutter and MultiBender do not infringe the '276 and/or '750 patents." (Kengott Decl. P 7.) Further, Ken contends that SDS exhibited bad faith in suing for infringement of the

'276 and '750 patents. Ken points to the fact that SDS withdrew its claims with no discovery and that the magistrate judge awarded Ken costs and attorneys fees in defending [*88] claims based on the later withdrawn '276 and '750 patents. Ken argues that this Court found that SDS' withdrawn claims had "an ambiance lack of merit," were "of a vexatious nature," were "meritless," and by SDS' own admission "should not have been brought." (See Cobrin Decl. Ex. E.; 4/10/00 Transcript, p. 8, 15). Ken complains that after SDS dismissed the '276 and '750 patents, it continued to make statements to third parties that Ken was infringing those patents. (Ken Br. 8, *citing* Exs. C, D and F).

SDS argues that the statements in the letters, press releases, and website articles were not objectively false and therefore, not written in bad faith as a matter of law. As discussed, [HN63] under the patent laws, there is an interest in protecting the privileged right of a patentee to notify the public of its patent rights as provided by the patent laws. Accordingly, the Federal Circuit's holding in Mikohn Gaming Corp. v. Acres Gaming, Inc., 165 F.3d 891, 897 (Fed. Cir. 1998) clearly instructs that [HN64] a threshold showing of *incorrectness or falsity*, or disregard for either, is required for a showing of bad faith:

Federal precedent is that communication to possible [*89] infringers concerning patent rights is not improper if the patent holder has a good faith belief in the accuracy of the communication. Although "bad faith" may encompass subjective as well as objective considerations, and the patent holder's notice is not irrelevant to a determination of bad faith, a competitive commercial purpose is not of itself improper, and bad faith is not supported when the information is objectively accurate. In general, a *threshold showing of incorrectness or falsity, or disregard for either, is required* in order to find bad faith in the communication of information about the existence or pendency of patent rights.

Id. (emphasis added).

The Court has reviewed the press releases and letters to which Ken refers and finds that the substance of these documents could not be reasonably viewed as objectively false. (See Cobrin Decl. Exs. D & F.) The press releases are generally descriptive of the pending litigation in this case. Statements with respect to Ken's infringement of SDS' patents are qualified as SDS' subjective belief or opinion. As example, the following is a portion of a press release to which Ken refers:

SDS, USA, Inc. announced [*90] that it has filed a patent infringement complaint against Ken Specialties,

Inc., in the United States Federal Court in Newark, New Jersey. The complaint charges that Ken Specialties is offering for sale or selling devices that infringe on at least one patent held by SDS USA, and seeks a court order preventing future infringement. "We believe Ken Specialties has been infringing on our patents from some time, and that this infringement materially damages SDS USA. We have made substantial investments over the past ten years to develop and market innovative equipment based on our patent technology, and we believe this suit is necessary to deter Ken Specialties from competing unfairly with us by infringing our patent(s).

(See e.g., Cobring Decl. Ex. D at ADAMS 1587.) As SDS argues, any reasonable person reading the press releases would understand that SDS' charges of infringement are merely allegations. The warnings sent to customers of MultiBender also cannot be reasonably seen as objectively false. The letters sent to Ken's customers essentially describe the patents assigned to SDS and then state:

We have been directed by SDS USA, Inc. to vigorously enforce its rights [*91] under the patents against all infringers. Recently, a patent infringement lawsuit has been filed against Ken Specialties in the U.S. Federal District Court, District of New Jersey based on the patents. In the Complaint filed in the lawsuit, the 'Multi-Bend' machine sold or offered-for-sale by Ken Specialties is one of the products alleged to be infringing on at least one of the above patents, including U.S. Patent 5,870,919. A copy of the '919 patent is enclosed herewith. Pertinent sections of U.S. Patent Law, 35 U.S.C. Sec. 271 and Sec. 281, et. seq. are also enclosed.

It has come to our attention that your company uses the 'Multi-Bend' machine. As you can see, the term 'uses' appears in Sec. 271(a) under the heading 'Infringement of patent.'

(See e.g., Cobrin Decl. Ex. D at Def.'s Doc. No. 1018.) The substance of the letter cannot be seen as objectively false. Rather, SDS is informing the customer about the present lawsuit and providing information so that the customer can make the determination whether the product being used infringes. [HN65] "It is not improper for a patent owner to advise possible infringers of its belief that a particular product [*92] may infringe the product." Mikohn, 165 F.3d at 897 (citing Scosche Indus., Inc. v. Visor Gear Incorporated, 121 F.3d 675, 681 (Fed. Cir. 1997)).

Ken also refers to "oral threats" to potential customers by Michael Adams and/or representatives of Adams Technologies; however, Ken does not specify the

specific statements that were made. n17 (See Cobrin Decl. Ex. C at 3.) As to these threats, Ken has set forth no credible evidence to support a reasonable factfinder's finding of bad faith under federal patent law. Also, both Simon Song and Mike Adams have declared that they have not threatened Ken's customers." (Song Decl., PP26-29; Adams Decl., PP3-7).

n17 In discovery responses, Ken failed to identify potentially threatening statements by SDS. SDS' Interrogatory No. 16 (Chau Decl. Ex. B, D) requested identification of all oral and written communications containing SDS' alleged threatening statements. Ken failed to allege the statements were made, much less the identity of any persons or customers to whom the statements were allegedly made.

[*93]

Further, Ken argues that after withdrawal of the '276 and '750 patents, SDS did not alter its press-releases, or its website, or send corrective letters. The press releases to which Ken refers (Cobrin Decl. Ex. F) taken from the Internet on August 30, 1999 while the motion to amend the complaint was pending before the magistrate judge do not represent objectively false statements. According to one of the press releases, the "complaint charges that Ken Specialties is offering for sale or selling devices that infringe on at least one patent held by SDS USA" (Id.) Although this Court notes that this statement does not advise the public of SDS' intention to withdraw claims with respect to two of the patents, it is not an objectively false statement and therefore does not meet the threshold finding of bad faith.

Moreover, this Court finds that Ken's arguments to further support a finding of bad faith are weak. n18 In support of its contention that SDS made representations to the public while knowing that Ken's product did not infringe its patents, Ken submits the declaration of Dale Kengott opining that "a person of ordinary skill in the art of die making and die cutting would conclude [*94] that the Multicutter and MultiBender do not infringe the '276 and/ or '750 patents." (Kengott Decl. P 7.) Ken also argues that bad faith is illustrated by the fact that this Court imposed "sanctions" against SDS because of claims of infringement with respect to the '276 and '750 patents. As discussed earlier in this opinion, there is no evidence that there is the Magistrate Judge imposed sanctions; rather, it is apparent that the Magistrate Judge did not make a finding of "bad faith" before granting attorney's fees to Ken.

n18 First, Ken argues for relief pursuant to Fed. R. Civ. P. 56(f) arguing that the SDS had commenced a suit without conducting a Fed. R. Civ. P. 11 investigation and then sought dismissal of the patents after six months of commencing the suit. Ken now asserts that the it should be provided with the opportunity to conduct discovery of SDS' infringement analysis and its conversations with counsel.

However, [HN66] a requirement under Rule 56(f) is that the party must be diligent in pursuing discovery before summary judgment. *C.B. Trucking v. Waste Management, Inc.* 137 F.3d 41, 44 (1st Cir. 1998). Discovery commenced on May 16, 1999 and ended on June 30, 2000. As SDS points out, Ken had failed counterclaims for unfair competition in December 1999; however, Ken waited until May 31, 2000 to seek discovery regarding SDS' basis for claims of infringement of the '276 and '750 patents in the form of a Third Request for Interrogatories and Notice of a 30(b)(6) deposition of SDS. SDS served responses to the Ken's interrogatories and designated Simon Song as a 30(b)(6) deponent and scheduled his deposition for June 20, 2000. However, after Ken's deposition of Michael Adams, Ken informed SDS that they would no require a further deposition of Simon Song. (Chau Suppl. Decl., Ex. M.). SDS also notes that Ken did not raise an objection to or seek to compel further discovery on SDS' interrogatory responses regarding unfair competition. (Chau Suppl. Decl., Ex. N.). Also, Ken has not demonstrated that further discovery of these individuals would result in evidence supporting a genuine issue of material fact with respect to the issue of bad faith. Considering these circumstances, this Court finds that Ken's request now to conduct further discovery from Mr. Song, Mr. Adams and counsel for SDS cannot be granted because of its lack of diligence in pursuing discovery before summary judgment and its failure to provide further evidence of bad faith on the part of SDS.

[*95]

Last, Ken argues that SDS did not conduct a reasonable investigation of the claims before filing suit; therefore, SDS' bad faith in commencing the lawsuit is demonstrated. [HN67] Fed. R. Civ. P. 11 n19 "imposes on counsel a duty to look before leaping." *Lieb v. Topstone Indus., Inc.*, 788 F.2d 151, 157 (3d Cir. 1986). To comply with the requirements for a "reasonable investigation of the facts and a normally competent level

of legal research to support the presentation" under Rule 11, the "courts must apply an objective standard of reasonableness under the circumstances." *Mary Ann Pensiero, Inc. v. Lingle*, 847 F.2d 90, 94 (3d Cir. 1988)(citation omitted). Ken argues that SDS did not compare the claims in the '276 and '750 patents to the Multi-Cutter and Multi-Bender machines. According to Ken, SDS had never actually seen a Multi-Cutter, has no admissible evidence of any pre-suit investigation, engaged in no discovery, and was forced to withdraw the suit only six months after it was filed. However, SDS presents the declaration of Simon Song that states that SDS with the assistance of counsel of counsel conducted an investigation of the '276 and '750 patents. [*96] SDS admits that for the MultiCutter, it had to rely on brochures that provided illustrations and descriptions from brochures. Simon Song declares that SDS met with counsel and analyzed the claims of the '276 patent based on such brochures. (Simon Song Decl. P 6.)

n19 Fed. R. Civ. P. 11 reads: [HN68] "Every pleading, motion, and other paper ... shall be signed The signature of an attorney or party constitutes a certificate by the signer that the signer has read the pleading, motion, or other paper; that to the best of the signer's knowledge, information, and belief formed after reasonable inquiry it is well grounded in fact and is warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law, and that it is not interposed for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation."

[HN69] Federal courts recognize that one factor that is used to determine the objective reasonableness of a prefilings inquiry is [*97] the "extent to which factual development requires discovery." *Jones v. Int'l Riding Helmets, Ltd.*, 49 F.3d 692, 695 (11th Cir. 1995); see also *Hoffmann-La Roche v. Invamed Inc.*, 213 F.3d 1359, 1363-65 (Fed. Cir. 2000). Here as SDS contends, its pre-filing inquiry regarding infringement of the '276 patent was reasonable under the circumstances in view of the publicly available information regarding the Multi-Cutter. Just before filing the Complaint asserting infringement of the '276 Patent, SDS attempted to procure detailed technical documentation relating to the Multi-Bender or a commercially available machine. (Song, Decl. P4). It was only able to procure brochures that provided broad illustrations. Based on this analysis, SDS says that it concluded in good faith that the machine may have infringed at least one claim of the '276 patent,

at least under the "Doctrine of Equivalents" (Song, Decl. P6). SDS says that because it was planning to conduct further discovery of proprietary information within the sole possession of Ken and/ or Young Wha, the manufacturer of the Multi-Cutter and MultiBender, Ken cannot claim that SDS failed to perform a reasonable [*98] investigation with respect to the '276 patent.

SDS' good faith basis is further illustrated by the course of conduct of Young Wha, Mr. Song testified that before marketing the Multi-Cutter, Young Wha had purchased an EasyCutter device (Song Decl. P8). Also one of Ken's representatives had been caught taking pictures of proprietary SDS machines, including the EasyCutter, after hours at a trade show. (Id. P9.) Dale Kengott agreed to erase the pictures. Accordingly, the record demonstrates SDS' good faith belief as to Ken's infringement of the '276 patent at the time of the filing of the complaint.

About the '750 patent, SDS' pre-filing investigation included an examination of a commercially available MultiBender machine, a review of publicly available brochures, and a review of videos of the operation of the MultiBender. In addition, SDS compared drawings of the MultiBender, against the claims of the '750 patent. (Song, Decl. P7). Based upon this, and upon the advice of counsel, SDS determined that the MultiBender may have infringed at least one claim of the '750 patent, at least under a theory of the doctrine of equivalents. (Id.) SDS concedes that the MultiBender machine includes [*99] at least one bending member, but it operates in substantially the same way to achieve substantially the same result as the two folding members in the '750 patent claims. In its Markman Opinion, this Court construed "at least one" to mean "one or more," See SDS v. Ken, 107 F. Supp. 2d at 590.

Furthermore, SDS cites Young Wha's behavior at a February 15, 1996 Open House demonstration of the EasyBender. According to SDS, defendant (H.S. Park and his software engineer) took pictures of, and attempted to copy SDS' proprietary rule processing/bending technologies. SDS alleges that they copied major parts of its product, and incorporated them into the MultiBender. (Song Decl. P 8.) The record demonstrates SDS good faith belief as to Ken's infringement of the '750 patent.

Finally, Ken attempts to establish SDS' bad faith by asserting that a negative inference should be drawn from SDS' voluntary withdrawal of its infringement claims of the '276 and '750 patents. However, courts recognize that [HN70] there are valid reasons for withdrawing claims. For instance, in the context of a Rule 11 motion, the Mary Ann Pensiero court stated that the abandonment of claims after filing [*100] a complaint does not negate

the reasonableness of the inferences existing at the time the complaint was prepared. 847 F.2d at 95-96. In addition, in Souran v. Travelers Insurance Co., 982 F.2d 1497 (11th Cir. 1993), the Eleventh Circuit noted that [HN71] a voluntary dismissal of counts cannot by itself be a sufficient reason to award sanctions under Rule 11, since a party's motive for dismissing counts "may reflect litigation strategy rather than frivolity of the counts." Id. at 1509.

Here SDS contends that its voluntary withdrawal of the '276 and '750 patents was based on rational business decisions and litigation strategy. (Song. Decl. PP 14-20.) First, it wanted to stop Ken's alleged infringement via the widespread marketing of the MultiBender device, and prevent and SDS' loss of market share. (Song Decl. PP 16, 18.) Second, SDS believed that if it could obtain a judgment of infringement of the '919 patent, it could mitigate and stave off what it believed to be Ken's bad faith campaign to harm SDS' reputation and goodwill. (Id. P19.)

SDS thought that withdrawal of the '750 patent would preclude recovery of certain damages based on approximately [*101] six months of sales of the MultiBender (August 4, 1998, the date of issuance of '750 patent to February 16, 1999, the date of issuance of the '919 patent), that otherwise would not have been recoverable because it was based on a different patent. Ultimately SDS concluded that the legal costs, resources and time that SDS would have to expend defending against Ken's defense to the '750 patent and proving infringement would exceed potential damages it would get on a finding of infringement. (Song. Decl. P20).

Ken has failed to provide evidence for a reasonable factfinder to determine that there was bad faith on the part of SDS in making its representations to the public with respect to the three patents. n20 Ken also has failed to provide evidence of bad faith to sustain the tortious interference of economic advantage claim in the Fifth Counterclaim. This Court grants SDS' motion for summary judgment on the Second, Third, Fourth and Fifth Counterclaims.

n20 This Court finds it unnecessary to address SDS' alternative grounds for summary judgment (e.g. Noerr-Pennington Doctrine, unclean hands, proof of damages).

[*102]

VII. DEFENDANTS' MOTION TO SUBMIT A SUPPLEMENTAL MEMORANDUM ON OBVIOUSNESS

Ken moves to submit a supplemental memorandum and declaration in opposition to Plaintiff's motion for summary judgment on the issue of obviousness addressed in this Court's November 2000 Opinion. This motion is now moot, as that motion was decided and Ken has set forth the information in the supplemental memorandum in its motions for reconsideration and summary judgment with respect to obviousness.

CONCLUSION

The parties have brought eight substantive motions in this case. First, defendant Dale Kengott's motion to dismiss for lack of personal jurisdiction and alternatively, for summary judgment on liability under 35 U.S.C. § 271(a) and (b) is denied with respect to the motion to dismiss and the motion for summary judgment for liability under § 271(b); the motion for summary judgment for liability under § 271(a) is granted. Second, Defendants' motion for this Court to reconsider its November 28, 2000 Opinion is denied. Third, SDS' motion to dismiss Ken's First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1) is granted. Fourth, Defendants' motion for summary judgment [*103] that U.S. Patent No. 5,870,919 is invalid due to anticipation under 35 U.S.C. § 102 is denied. Fifth, Defendants' motion for summary judgment on the issues of obviousness and best mode under 35 U.S.C. § 103, and 35 U.S.C. § 112, respectively is denied. Sixth, SDS' cross-motion for summary judgment dismissing Ken's Best Mode Defense is granted with respect to Claims 1-8, 10 and 11 and denied as to Claims 9 and 12. Seventh, SDS' motion for summary judgment dismissing Ken's counterclaims for "unfair competition" is granted. Eighth, Defendants' motion to submit a supplemental memorandum and declaration in opposition to Plaintiff's motion for summary judgment on the issue of obviousness is mooted.

28 August 2002

Dated

William H. Walls, U.S.D.J.

ORDER

Walls, District Judge

This matter comes before this Court on eight motions brought by the parties. First, defendant Dale Kengott ("Kengott") moves to dismiss for lack of personal jurisdiction and alternatively, for summary judgment on liability under 35 U.S.C. § 271(a) and (b). Second, defendant Ken Specialties ("Ken") and Kengott

[*104] (collectively "Defendants") move for this Court to reconsider its November 28, 2000 Opinion ("November 2000 Opinion"). Plaintiff SDS USA, Inc. ("SDS") moves to dismiss Ken's First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1). Fourth, Defendants move for summary judgment that U.S. Patent No. 5,870,919 is invalid due to anticipation under 35 U.S.C. § 102. Fifth, Defendants move for summary judgment on the issues of obviousness and best mode under 35 U.S.C. § 103 and 35 U.S.C. § 112, respectively. Sixth, SDS cross-moves for summary judgment dismissing Ken's best mode defense. Seventh, SDS moves for summary judgment dismissing Ken's counterclaims for "unfair competition." Eighth, Defendants move to submit a supplemental memorandum and declaration in opposition to Plaintiff's motion for summary judgment on the issue of obviousness. This Court has heard oral arguments of counsel and reviewed the submissions of the parties.

For the reasons given in the accompanying Opinion, and for good cause shown,

It is on this 28th day of August, 2002:

ORDERED that Kengott's motion to dismiss for lack of personal jurisdiction [*105] is DENIED;

FURTHER ORDERED that Kengott's motion for summary judgment for liability under § 271(b) is DENIED;

FURTHER ORDERED that Kengott's motion for summary judgment for liability under § 271(a) is GRANTED;

FURTHER ORDERED that Defendants' motion for reconsideration is DENIED;

FURTHER ORDERED that SDS' motion to dismiss Defendants' First Counterclaim pursuant to Fed. R. Civ. P. 12(b)(1) is GRANTED;

FURTHER ORDERED that Defendant's motion for summary judgment that U.S. Patent No. 5,870,919 is invalid due to anticipation under 35 U.S.C. § 102 is DENIED;

FURTHER ORDERED that Defendants' motion for summary judgment on the issues of obviousness and best mode under 35 U.S.C. § 103 and 35 U.S.C. § 112 is DENIED;

FURTHER ORDERED that SDS' cross-motion for summary judgment dismissing Ken's best mode defense is GRANTED with respect to Claims 1-8, 10 and 11 and DENIED as to Claims 9 and 12;

FURTHER ORDERED that SDS' motion for summary judgment dismissing Ken's counterclaims for "unfair competition" is GRANTED;

FURTHER ORDERED that Defendants' motion to submit a supplemental memorandum and declaration in opposition [*106] to Plaintiff's motion for summary judgment on the issue of obviousness is MOOTED.

William H. Walls, U.S.D.J

SDS USA, INC., Plaintiff, v. KEN SPECIALTIES, INCORPORATED, Defendant.

Civ. No. 99-133

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

122 F. Supp. 2d 533; 2000 U.S. Dist. LEXIS 19038; 62 U.S.P.Q.2D (BNA) 1325

November 28, 2000, Decided

DISPOSITION:

[**1] Plaintiff's motion for summary judgment for literal infringement granted; defendant's motion for partial summary judgment for non-infringement on the basis of its obviousness and best mode defenses denied; defendant's motion for declaratory judgment of non-infringement of its new split-pin bending machine denied.

CASE SUMMARY

PROCEDURAL POSTURE: Plaintiff moved for summary judgment for patent infringement. Defendant cross-moved for non-infringement, asserting affirmative defenses of "obviousness" and "best mode," and moved for declaratory judgment of non-infringement of its new machine, in plaintiff's patent infringement action.

OVERVIEW: Plaintiff's patent taught an apparatus, method, and system, to aid the mass production of cardboard boxes and similar items. Plaintiff claimed that defendant's products literally infringed its patent. The court discussed "ribbon stock" and "cutter" which appeared as general concepts in plaintiff's patent claims, and then examined each claim of plaintiff's patent to determine if there was literal infringement. The court found literal infringement on each claim and then addressed defendant's argument that there was nonetheless, under the reverse doctrine of equivalents, no infringement. The court rejected that argument, finding defendants failed to mount a *prima facie* case because it compared its accused product not to plaintiff's patent, but to plaintiff's commercial embodiment, an improper standard. The court also rejected defendant's obviousness defense, applying a most formidable presumption of validity because defendant's assertion of invalidity relied only upon prior art already considered by the Patent and Trademark Office, and defendant's best mode defense,

finding plaintiff had not committed a best mode violation on the basis of its certificate of correction.

OUTCOME: The court granted plaintiff's motion for literal infringement, denied defendant's motion for partial summary judgment for non-infringement on the basis of its obviousness and best mode defenses, and denied defendant's motion for declaratory judgment of non-infringement of its new machine, holding, *inter alia*, that defendant had failed to mount a *prima facie* case of the applicability of the reverse doctrine of equivalents.

LexisNexis(TM) HEADNOTES - Core Concepts

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN1] Summary judgment is appropriate where the moving party establishes that there is no genuine issue as to any material fact and that it is entitled to a judgment as a matter of law. Fed. R. Civ. P. 56(c).

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN2] A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, under the substantive law, it would affect the outcome of the suit.

Civil Procedure > Summary Judgment > Burdens of Production & Proof

[HN3] The party moving for summary judgment must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the nonmoving party to carry its burden of proof.

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Civil Procedure > Summary Judgment > Burdens of Production & Proof

[HN4] Once the moving party has carried its burden under Fed. R. Civ. P. 56, its opponent must do more than simply show that there is some metaphysical doubt as to the material facts in question. The opposing party must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings.

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HNS] At the summary judgment stage the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. In doing so, the court must construe the facts and inferences in the light most favorable to the nonmoving party.

Patent Law > Infringement > Summary Judgment

[HN6] In a patent-infringement case, a district court should approach a motion for summary judgment on the fact issue of infringement with great care. Summary judgment may, however, properly be decided as a matter of law when no genuine issue of material fact exists, and no expert testimony is required to explain the nature of the patented invention or the accused product or to assist in their comparison.

Patent Law > Infringement > Acts of Infringement

[HN7] To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly.

Patent Law > Infringement > Acts of Infringement

[HN8] A patent infringement analysis involves two steps. The first one, claim construction, is a question of law. The second one, comparison of the properly construed claims to the accused infringing product, is a question of fact.

Patent Law > Infringement > Claim Interpretation

[HN9] The claim language is illuminated by the written description and the prosecution history.

Patent Law > Infringement > Summary Judgment

[HN10] Although the question of infringement is generally one for a jury, summary judgment of infringement may be granted when a rational jury could only conclude that infringement has occurred.

Patent Law > Infringement > Acts of Infringement

[HN11] Literal infringement of a claim exists when every limitation recited in the claim is found in the

accused device, that is, when the properly construed claim reads on the accused device exactly.

Patent Law > Infringement > Acts of Infringement

[HN12] One cannot avoid infringement by adding elements if each element in the claims is found in the accused device. In other words, if an accused device contains all of the elements of the patented device, it cannot escape an infringement claim merely by adding a few elements.

Patent Law > Infringement > Acts of Infringement

[HN13] It is improper to compare the defendant's accused device to a commercial embodiment of the patentee's invention.

Patent Law > Infringement > Reverse Doctrine of Equivalents

[HN14] The defendant in a patent infringement action bears the burden of making out a prima facie case of the applicability of the reverse doctrine of equivalents. One does not make a reverse doctrine of equivalents argument by simply mounting a defense to literal or doctrine of equivalents infringement.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN15] Assertion of an obviousness defense does not first require claim construction.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN16] A determination of obviousness requires two steps. First, claim construction is a question of law for the court.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN17] See 35 U.S.C.S. § 103.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN18] To determine obviousness, the invention is considered as a whole, and the claims considered in their entirety.

Patent Law > Nonobviousness > Double Patenting & Terminal Disclaimers

[HN19] The non statutory double patenting rejection is a judicially-created doctrine grounded in public policy to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.

Patent Law > Infringement > Defenses > Invalidity

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[HN20] A patent is presumed to be valid by statute. 35 U.S.C.S. § 282.

Patent Law > Infringement > Defenses > Invalidity

[HN21] A party challenging the validity of a patent has the burden of persuasion and must show clear and convincing evidence to prevail.

Patent Law > Infringement > Defenses > Invalidity

[HN22] The presumption of validity is "most formidable" when the party asserting invalidity relies only upon prior art already considered by the Patent and Trademark Office.

Patent Law > Nonobviousness > Tests & Proof of Obviousness

[HN23] References to render a claim obvious must teach or suggest all claim limitations.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN24] No amendment shall introduce new matter into the disclosure of the invention. 35 U.S.C.S. § 132.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN25] The fundamental inquiry is whether the material added by amendment was inherently contained in the original application.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN26] An existing patent application may not be amended by adding new matter (i.e., it loses its date of priority). 37 C.F.R. § 1.121(a)(6).

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN27] Matter not in the original specification, claims or drawings is usually new matter. Depending on the circumstances such as the adequacy of the original disclosure, the addition of inherent characteristics such as chemical or physical properties, a new structural formula or a new use may be a new matter. Manual of Patent Examining P. § 608.04(a).

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN28] The new matter prohibition is closely related to the adequate disclosure requirements of 35 U.S.C.S. §

112. Section 112 requires: a written description of the invention and the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same. 35 U.S.C.S. § 112. To avoid the new matter prohibition, an applicant must show that its original application supports the amended matter.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN29] Geographic changes are appropriate matters for certificates of correction, and are not akin to an attempt to broaden the patent claims which would necessitate a reissue application.

Patent Law > Specification & Claims > Best Mode

[HN30] See 35 U.S.C.S. § 112.

Patent Law > Specification & Claims > Best Mode

[HN31] The best mode requirement is intended to ensure that a patent applicant plays fair and square with the patent system; one must not receive the right to exclude others unless at the time of filing one has provided an adequate disclosure of the best mode known to him or her of carrying out the invention.

Patent Law > Specification & Claims > Best Mode

[HN32] In order to find a best mode violation, the record must show that at the time of filing the inventor considered one mode to be superior over those modes disclosed in the specification, with respect to the claimed invention. The defendant has the burden to show by "clear and convincing evidence" a best mode violation.

Patent Law > Specification & Claims > Best Mode

[HN33] In general, the best mode inquiry is directed to what the applicant regards as the invention, which in turn, is measured by the claims. Unclaimed elements, however, may also be subject to the best mode requirement if they are necessary to implement the claimed invention.

Patent Law > Specification & Claims > Description Requirement

[HN34] An inventor is not required to supply all production specifications.

Patent Law > Specification & Claims > Best Mode

[HN35] The general rule is that a best mode violation exists only where the undisclosed method affects how well the invention works.

Patent Law > Specification & Claims > Best Mode

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[HN36] Analysis of a best mode violation begins with the date the patent application was filed.

Patent Law > Specification & Claims > Best Mode

[HN37] Under 35 U.S.C.S. § 120, a continuation patent is entitled to the benefit of the filing date of an earlier filed application if the subject matter of the claim is disclosed in the manner provided by 35 U.S.C.S. § 112.

Patent Law > Specification & Claims > Best Mode

[HN38] Under 35 U.S.C.S. § 119, the claims in a U.S. patent application are entitled to the benefit of a foreign priority date, or the filing date if the corresponding foreign application supports the claims in the manner required by 35 U.S.C.S. § 112.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Prohibition Against New Matter

[HN39] An existing patent application may not be amended by adding new matter (it loses its date of priority). 37 CFR § 1.121(a)(6).

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Examination of Applications

[HN40] Certificate of corrections which arise from the fault of the applicant are governed by 35 U.S.C.S. § 255.

Patent Law > U.S. Patent & Trademark Office Prosecution Procedures > Examination of Applications

[HN41] See 35 U.S.C. § 255.

Patent Law > Specification & Claims > Best Mode

[HN42] To determine whether a best mode violation exists, the first inquiry is the inventor's subjective knowledge. If at the time the patent application was filed, the inventor had subjective knowledge of the best mode of carrying out an invention, and did not disclose it in the patent, he has committed a best mode violation.

Patent Law > Specification & Claims > Best Mode

[HN43] Commercial embodiments are not equivalent to the best mode of a claimed invention.

Patent Law > Specification & Claims > Best Mode

[HN44] Best mode inquiry is directed to what the applicant regarded as the invention at the time of filing, which in turn is measured by the claims. However, best mode analysis is not strictly limited to claim limitations. Unclaimed elements may also be subject to the best mode requirement if they are necessary to implement the claimed invention.

Patent Law > Specification & Claims > Best Mode

[HN45] The best mode requirement, has nothing to do with mass production, or with sales to customers having particular requirements. The unclaimed elements requirement also does not relate to routine details that are apparent to one of ordinary skill in the art.

Patent Law > Jurisdiction & Review > Subject Matter Jurisdiction

[HN46] A declaratory judgment plaintiff in an action of invalidity or non-infringement must establish an actual controversy on the totality of the circumstances.

Patent Law > Jurisdiction & Review > Subject Matter Jurisdiction

[HN47] In cases involving a declaratory judgment of patent non-infringement or invalidity, the test for determining whether an actual controversy exists is two-pronged. First, the accused infringer must have actually produced or prepared to produce an allegedly infringing product. The first prong looks to the accused infringer's conduct and ensures that the controversy is sufficiently real and substantial. Second, the patent holder's conduct must create an objectively reasonable apprehension on the part of the accused infringer that the patent holder will initiate suit if the allegedly infringing activity continues. If these prongs are not met, the court is divested of jurisdiction.

COUNSEL:

For SDS USA, INC., plaintiff: KEITH E. GILMAN, LERNER, DAVID, LITTBENBERG, KRUMHOLZ & MENTLIK, WESTFIELD, NJ.

For KEN SPECIALTIES, INCORPORATED, defendant: MARVIN S. GITTES, NORTH BERGEN, NJ.

For KEN SPECIALTIES, INCORPORATED, defendant: DAVID W. DENENBERG, COBRIN & GITTES, NEW YORK, NY.

For KEN SPECIALTIES, INCORPORATED, counter-claimant: MARVIN S. GITTES, NORTH BERGEN, NJ.

JUDGES:

William H. Walls, U.S.D.J.

OPINIONBY:

William H. Walls

OPINION:

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Walls, District Judge

Plaintiff SDS USA, Inc. moves for summary judgment for patent infringement. Defendant Ken Specialties filed an Opposition, a cross-motion for summary judgment for non-infringement, and asserted the affirmative defenses of "obviousness" and "best mode." The defendant also filed a "Supplemental and Reply Brief" for a summary judgment that its new "split-pin" machine does not infringe SDS EasyBender machine. [**2] Plaintiff's motion is granted and the motions of the defendant are denied.

BACKGROUND

U.S. Patent No. 5,870,919 ("919 patent") was issued to SDS as assignee on February 16, 1999. This patent teaches an "apparatus" (claims 1-7), "method" (claims 8-11) and "system" (claim 12) to aid the mass production of cardboard boxes and similar items. The claimed machine shapes a die from metal rule. The die, later placed in a diecutting machine, is used to stamp out box blanks from sheet material such as cardboard. The '919 patent issued from U.S. Patent No. 49,391 ("'391 application"), filed in March 1998 which was a continuation of U.S. Patent Application No. 668,379 ("'379 application"), filed in June 1996. The '379 application claimed the priority date of a Korean patent application filed in June 1995. The inventor of the '919 patent is Byung-Jun ("Brian") Song, President of Plaintiff. On August 3, 2000, this court issued a "Markman" ruling, which found that the patent was not invalid for indefiniteness and satisfied the written description requirement. Then the Court construed the various claims of the '919 patent that are the subject of the present motions of summary judgment.

[**3] ANALYSIS

1. Summary Judgment Standard

[HN1] Summary judgment is appropriate where the moving party establishes that [*536] "there is no genuine issue as to any material fact and that [it] is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). [HN2] A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48, 91 L. Ed. 2d 202, 106 S. Ct. 2505 (1986). A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, under the substantive law, it would affect the outcome of the suit. See Anderson, 477 U.S. at 248. [HN3] The moving party must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the nonmoving party to carry its burden of proof.

See Celotex v. Catrett, 477 U.S. 317, 318, 91 L. Ed. 2d 265, 106 S. Ct. 2548 (1986).

[HN4] Once the moving party has carried its burden under Rule 56, "its opponent must do more than simply show that there is some metaphysical doubt as to the material [**4] facts in question." Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586, 89 L. Ed. 2d 538, 106 S. Ct. 1348 (1986). The opposing party must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings. See Sound Ship Building Co. v. Bethlehem Steel Co., 533 F.2d 96, 99 (3rd Cir. 1976), cert. denied, 429 U.S. 860, 50 L. Ed. 2d 137, 97 S. Ct. 161 (1976). [HN5] At the summary judgment stage the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. See Anderson, 477 U.S. at 249. In doing so, the court must construe the facts and inferences in the light most favorable to the nonmoving party. See Wahl v. Rexnord, Inc. 624 F.2d 1169, 1181 (3rd Cir. 1980).

[HN6] In a patent-infringement case, a district court should approach a motion for summary judgment on the fact issue of infringement with great care. Palumbo v. Don-Joy Co., 762 F.2d 969, 974 (Fed. Cir. 1985), *overruled on other grounds* Markman v. Westview Instruments, Inc., 52 F.3d 967, 976-79 (Fed Cir. 1995) [**5] (*en banc*). Summary judgment may, however, properly be decided as a matter of law when no genuine issue of material fact exists, and no expert testimony is required to explain the nature of the patented invention or the accused product or to assist in their comparison. See, e.g., Sanitary Refrigerator Co v. Winters, 280 U.S. 30, 36, 74 L. Ed. 147, 50 S. Ct. 9 (1929); Singer Mfg. Co. v. Cramer, 192 U.S. 265, 275, 48 L. Ed. 437, 24 S. Ct. 291 (1904).

2. Patent Infringement Analysis of the '919 Patent

[HN7] To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly." Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995). [HN8] A patent infringement analysis involves two steps. The first one -- claim construction -- is a question of law. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996); Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448, 1454 (Fed. Cir. 1998). This court's recent opinion, SDS, USA, Inc. v. Ken Specialties, 107 F. Supp. 2d 574 (D.N.J. 2000) has construed [**6] the claims that are the subject of the present dispute. The second one -- comparison of the properly construed claims to the accused infringing product, is a question of fact. See Markman v. Westview

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Instruments, Inc., 517 U.S. 370, 384, 134 L. Ed. 2d 577, 116 S. Ct. 1384 (1996). [HN9] The claim language is illuminated by the written description and the prosecution history. See Pitney-Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed. Cir. 1999). [HN10] Although the question of infringement is generally one for a jury, summary judgment of infringement may be granted when a rational jury could only conclude that infringement has occurred. See Karlin Tech. Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 974-75 (Fed. Cir. 1999) (reversing [*537] summary judgment of non-infringement and granting judgment of infringement because no reasonable jury could determine that any claim limitation was absent from the accused device).

The plaintiff has claimed that defendant's products "literally infringe" its '919 patent. [HN11] Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device, that is, when the properly [**7] construed claim reads on the accused device exactly. Amhil Enterprises v. Wawa, Inc., 81 F.3d 1554, 1562 (Fed. Cir. 1996). It is necessary to examine the limitations in each claim to determine if defendant's "Multi-Bender" machine literally infringes plaintiff's "EasyBender" machine: First, a discussion of the general concepts of "ribbon stock" and a "cutter" which appear in several of the claims. Afterwards, each claim of the '919 patent will be examined to determine if there is literal infringement.

A. Preliminary Definitions

1. "Ribbon Stock"

It is useful to define some basic terms such as "ribbon stock" and "cutter" that guide the analysis. At the Markman hearing, defendant asserted that ribbon stock could only be precut steel rule. (Ken Non-Infr. Br. at 20-21). However, the Markman opinion concluded that ribbon stock is not limited to precut steel rule, and instead, "refers to the material from which the preferred-embodiment 'cutting blade' is constructed." Plaintiff v. Ken Specialties, 107 F. Supp. 2d at 579. Because ribbon stock is not limited to precut steel rule, Ken's non-infringement arguments as to ribbon stock are rejected. [*8]

2. The "Cutter"

The cutter is another limitation which appears throughout several of the claims. This court has adopted as the definition of "cutter" (an element which appears in claim 12 of the '919 patent) the meaning found in the "Glossary of Terms" of the International Association of Diecutting and Diemaking ("I.A.D.D.") SDS, 107 F. Supp. 2d at 594 as simply "a term used to describe a bench tool used to cut steel rule stock in the manufacture

of steel rule dies." Id. The defendant's effort to limit the "cutter" under § 112 P6 to correspond only to the particular cutter shown in Korean Patent No. 80607 has been rejected.

Defendant argues that because the patent teaches a machine that "cuts, miters and notches," and that its machine only cuts, there is no infringement. (Ken Non-Infr. Br. at 14, citing Kengott Decl. P31.) However, the claim has been construed to require only the cutting of steel rule, without mentioning mitering or notching. Defendant freely admits that its cutter is simply a "sheer cutter" (Id. at 18). Because defendant's machine has a cutter like the one described in the IADD Glossary, non-infringement argument regarding this limitation [**9] cannot be accepted.

B. The "Transferring Unit"

Claim 1 begins by describing a transferring unit. The Markman opinion found that the transferring unit (or transfer roller) was a mechanism that moves the ribbon stock from a roller at the beginning of the assembly line through a longitudinal passage formed by a guide. Plaintiff contends that defendant's products meet this limitation.

The transferring unit of the accused product "is an opposing pair of rollers spaced apart from each other to define a separation through which said steel rule is fed." (Ken Non-Infr. Br. 2) Ken's president, Dale Kengott, admitted as such. (See Kengott Non-Infr. Decl. P 13).

Plaintiff argues that defendant's products infringe method claims 8-11. These method claims do not require a "transferring unit," but only a step of "transferring of the ribbon stock through a passage formed by a guide, said passage defining a longitudinal axis ..." (Plaintiff Br. 4). According to Plaintiff, the use of Ken's accused [*538] product involves such a step. Id. Ken has not refuted this assertion.

C. "The Guide"

There is a dispute whether Ken's product infringes upon "the guide." Claim 1 also calls for "a [**10] transfer unit for transfer of ribbon stock through a passage formed by a guide ..." Plaintiff asserts that the steel rule in Ken's accused product travels through a guide in exactly the same manner as shown in the '919 specification. (See Plaintiff Infr. Br. at 7-8). According to Plaintiff, there is no genuine issue as to whether in Ken's accused product, the ribbon stock is transferred through a passage formed by a guide. Ken has confirmed the accuracy of Document Plaintiff-0002 (Gilman Infr. Decl. Exh. 13) and Defendant's Document Numbers 8-87 (Gilman Infr. Exh. 12) which show the offending method.

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In the '919 patent, the roller urges the blank material into and through a guide. As shown in Ken's document 8-87, the blade material goes through an "intermediate guide" and "auxiliary guide" before it goes through the "main guide." (See Plaintiff Infr. Br. 5-6). Ken does not refute that its product works exactly like Plaintiff's product, but merely offers that the ribbon stock in the accused product passes through not one, but three guides. However, [HN12] one cannot avoid infringement by adding elements if each element in the claims is found in the accused device. In other words, if an [**11] accused device contains all of the elements of the patented device, it cannot escape an infringement claim merely by adding a few elements. Temco Elec. Motor Co. v. Apco Mfg. Co., 275 U.S. 319, 328, 72 L. Ed. 298, 48 S. Ct. 170 (1928); A.B. Dick Co. v. Burroughs Corp. 713 F.2d 700, 703 (Fed. Cir. 1983).

D. The "Longitudinal Axis"

Claim 1 of the '919 patent also describes a longitudinal axis. Defendant argues that even though its device has a guide, there is no longitudinal axis. However, as pointed out by Plaintiff, claim 1 refers to a transferring unit for transfer of ribbon stock through a passage formed by a guide. If there is a passage, it "necessarily" defines a longitudinal axis. Ken admits as much in its brief: "The passage [in the '919 patent] defines a longitudinal axis ... Thus, the guide [in the '919 patent] is a hollow structure in which a longitudinal axis is defined by a passage." (Ken Non-Infr. Br. 10). Since Ken's product has a guide, it necessarily defines a longitudinal axis.

Ken tries to avoid infringement by arguing that the opposing pair of rollers which correspond to the "transferring unit" limitation do not themselves [**12] have a hollow structure, necessary to define a longitudinal axis. (See Ken Non-Infr. Br. 10). According to Plaintiff, Ken confuses "transferring unit" and "guide." The transferring unit transfers ribbon stock through a passage formed by a guide, and that passage defines a longitudinal axis. Plaintiff argues that defendant Ken's device is within this requirement. The Court agrees.

E. Rotary Assembly Limitation

Claim 1 also calls for "a rotary assembly having first and second rotary bodies spaced to receive ribbon stock there between ... " In response to requests for admission, the defendant admits that the Multi-Bender (MB 900-B or MB 710-B) includes two rotary bodies which are spaced from one another. (Gilman Infr. Decl. Exh. 11, Resp. to Req. for Admis. Nos. 7, 7A; see also Resp. to Req. for Admis. No. 56, admitting that "Documents Plaintiff-00002 shows two rotary members at 43.") The Plaintiff-00002 drawing clearly depicts how the pulleys 43 are spaced apart and how the metal ribbon stock

travels between them. According to Plaintiff, Ken's product literally infringes the '919 patent based on the rotary assembly. The Court agrees with the plaintiff. [**539]

F. The "At Least [13] One Retractable Elongate Member" Limitation**

Claim 1 requires, "at least one retractable elongate member, said elongate member mounted for movement between a retracted position where said elongate member is disengaged from at least one of said rotary bodies and an extended position where said elongate member engages both said first and second rotary bodies ... "

At the Markman hearing, Ken adamantly argued that 'elongate member' referred to two or more folding members. The Court did not accept that definition and held that "at least one" meant one or more. Id. 107 F. Supp. 2d at 589-90. The Court also rejected Ken's contention that this was a means-plus-function limitation under 35 U.S.C. § 112 P6. Because Ken's Multi-Bender has one retractable elongate member, it literally infringes the '919 patent.

One of the defendant's present arguments against plaintiff's motion is that the bending pins in the accused product only bends "uncut" steel rule. In answer to plaintiff's Rule 56.1 Statement PP 8-9, defendant asserts "the bending pins of the accused product only bend uncut steel rule." However, this court has already refused Ken's argument that "ribbon stock" is [**14] limited to precut steel rule. Id. at 579.

Finally, Ken's assertions of non-infringement that compare its product to plaintiff's commercial product and brochures relating thereto are irrelevant. (See Ken Non-Infr. Br. at 12). [HN13] It is improper to compare the defendant's accused device to a commercial embodiment of the patentee's invention. See, e.g., Glaxo, Inc. v. TorPharm, Inc., 153 F.3d 1366 (Fed. Cir. 1998); Zenith Lab, Inc v. Bristol-Myers Squibb Co., 19 F.3d 1418, 1423 (Fed. Cir. 1994); Martin v. Barber, 755 F.2d 1564, 1567 (Fed. Cir. 1985). The Court finds that defendant's accused device plainly meets the "at least one retractable elongate member" limitation.

G. The "Arcuate Motion" Limitation

The final limitation of claim 1 calls for, "said rotary assembly configured for arcuate motion relative to said guide from a first position toward at least one second position to fold a portion of said ribbon stock by said elongate member." Ken admits that the upper and lower pulleys of its Multi-Bender are rotatable (Gilman Decl. Infr. Exh. 11), and that the bending pin moves with the "gears" (i.e., pulleys) in an arcuate motion. [**15] (Gilman Decl. Infr. Exh. 15, Kengott Dep. at 177:14-18.) It is clear that Ken's two pulleys rotate, that is, go

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through "arcuate motion" relative to the guide from one position to another, and that the ribbon stock is folded by the elongate member or the "bending pin." The Multi-Bender infringes the '919 patent for claim 1.

H. The "Sequentially Positioned" Limitations

Dependent claim 2 calls for a ribbon stock folding apparatus as recited in claim 1 "wherein a retractable member can be sequentially positioned on opposite sides of said longitudinal axis." Ken's president has testified that the bending pin is on one side of the steel rule at a time, and can bend from either side of the rule. (Kengott Dep. at 177:14 - 178:9) According to Plaintiff, this demonstrates that Ken's accused device meets the "sequentially positioned limitations." In its Opposition brief, Ken did not respond to the point nor offer any evidence to demonstrate that its accused machine does not infringe claim 2's "sequentially positioned" limitation. Without facts from defendant which refute the above, plaintiff is granted summary judgment for infringement on this claim.

I. The "Supply of Metallic Ribbon Stock" Limitation

Dependent claim 7 and 12 specifically call for a supply of metallic ribbon stock. Ken's only response was its now rejected argument that the supply of ribbon stock [*540] only meant "precut." It is not denied that the accused products include a supply of elongate metallic material (or "metallic ribbon stock"). Ken has not advanced any facts of refutation. Consequently, claims 7 and 12 are literally infringed.

J. The Method Claims

Independent method claim 8 is substantially coextensive with claim 1. Plaintiff argues that the defendant's use of continuous lengths of metallic rule meets the "ribbon stock" limitation found in claim 8. Ken has not disputed this.

Independent method claim 10 is the method version of the "sequentially positioning" limitation earlier discussed. Ken's accused machine meets this limitation. Also, claim 11 is the method counterpart of claim 6, in that it adds the notion of folding ribbon stock in a direction substantially transverse to the longitudinal axis. Ken's accused device infringes both Claims 6 and 11 because each of the machines bends the metallic ribbon stock with the elongate member engaging both the first and second rotary bodies. [**17]

Independent method claim 9 is the same as claim 8, with the further step of "cutting ribbon stock at a predetermined length." Ken was asked to admit that its accused Multi-Benders include a device for cutting metallic material at a predetermined length. Ken denied

these requests because according to the defendant, the '919 patent required that cutting take place before bending, whereas in the accused product, cutting takes place after bending. However, Ken admitted that "the Multi-Bender cuts continuous rule at a predetermined length after bending" (See Gilman Infr. Decl. Exh. 11, Resp. to Req. for Admis. Nos. 32, 32A). Nothing in claim 9 requires that cutting take place before bending. Ken's admission that the use of its benders includes the step of cutting the ribbon stock at a predetermined length is evidence of infringement of claim 9.

K. The System Claim

Most of the elements of system claim 12 have already been discussed. The last three elements are identical to elements in claim 1, and are present in the Ken machines for reasons already given. The first element of claim 12, "a supply of ribbon stock," is clearly present when blade material is present with [**18] Ken's devices

The fifth element of claim 12, which calls for a cutter for cutting ribbon stock at a predetermined location, is present in Ken's products. It is undisputed that Ken's devices have a "cutter," and the "predetermined location" in Ken's device is upstream from the bender. The Markman opinion has determined that claim 12 contemplates cutting before or after bending.

The third element of claim 12 calls for, "a guide mounted in said frame, said guide having a passage therein, said passage defining a longitudinal axis." The fourth element calls for, "a transferring unit for controlled transfer of said ribbon stock through said passage in said guide." Claim 12 differs somewhat from claim 1 in that claim 12 specifically refers to the guide as a separate element, while claim 1 refers to it in the context of the "transfer unit." Plaintiff argues that Ken's products indisputably have a guide with a passage therein, and transferring unit (rollers) for transferring the ribbon stock through the passage in the guide. Ken provides no facts to challenge this. Plaintiff is entitled to summary judgment on claim 12.

L. The "Reverse Doctrine of Equivalents" is Inapplicable [**19]

Ken argues that even if this court finds literal infringement of the '919 patent, there is no infringement under the "reverse doctrine of equivalents." Plaintiff complains that while Ken has established the literal existence of the doctrine, it has not provided facts that meet the standard for "the reverse doctrine of equivalents." [*541]

[HN14] Defendant bears the burden of making out a *prima facie* case of the applicability of the reverse

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doctrine of equivalents. In its brief, Ken has only attempted to mount a defense to infringement for some of the claims of the '919 patent. As explained in *Texas Instruments, Inc. v. United States Int'l Trade Comm'n*, 988 F.2d 1165, 1176 (Fed. Cir. 1993), "one does not make a reverse doctrine of equivalents argument by simply mounting a defense to literal or doctrine of equivalents infringement."

Ken fails to mount a *prima facie* case because it compares the accused product not to the '919 patent, but to Plaintiff's commercial embodiment. This is the improper standard. Defendant's argument may be reduced to the difference between Plaintiff's "*cutting before bending*" and Ken's "*bending before cutting*." There may be advantages to do [**20] one before the other, but Ken has failed to demonstrate that reversing the sequence so dramatically departs from the technical principles of the '919 invention that literal infringement should be excused.

Finally, Ken urges reverse equivalency because the cutter set forth in Korean Patent No. 80607 can cut, notch, and miter, while Ken's accused product simply cuts. (See Ken Non-Infr. Br. at 17-18). However, this court has not construed any of the claims of the '919 patent to require notching or mitering, and only two of the claims require cutting at all. Ken's device cuts steel rule, and when a cut is made, one piece of steel rule becomes two pieces of steel rule. This cannot count as a "reverse equivalent" of the '919 patent, and, in fact, is very close to the claimed invention. Ken has failed to establish the applicability of the reverse doctrine of equivalents. This conclusion is bolstered by the maxim that instances in which the reverse doctrine of equivalents results in non-infringement are "statistically rare." CHISUM, PATENTS, § 18.04 [4] at 18-392 (Supp. 2000); *Caterpillar Tractor Co. v. Berco, S.p.A.*, 714 F.2d 1110, 1115 n.3 (Fed. Cir. 1983). The reverse [**21] doctrine of equivalents is inapplicable; plaintiff's motion for summary judgment for infringement is granted.

3. Ken's Obviousness Defense

Before analyzing the merits of defendant's two principal defenses, obviousness and best mode, the Court addresses discovery related disputes raised by plaintiff. Defendant did not reveal to plaintiff its plans to assert an obviousness defense until after the close of discovery. In its defense, Ken asserts that obviousness requires claim construction. Before August 3, 2000, this court had not construed the claims, so defendant felt justified in withholding its plans to assert an obviousness defense. However, the Court finds that [HN15] assertion of an obviousness defense does not first require claim

construction. But since the plaintiff has not been prejudiced, defendant may assert its obviousness defense. Additionally, plaintiff complains that defendant did not assert its best mode defense until the end of the discovery period. Defendant responded that in the absence of a court order requiring it to disclose its defenses during discovery, it was entitled to update its responses until the end of discovery. Although the Court disagrees with [**22] Ken, in the absence of prejudice to SDS, defendant will be allowed to assert its best mode defense as well.

The Court now examines the merits of Ken's obviousness defense. Defendant asserts that its alleged infringement of the EasyBender machine should be excused for obviousness, a defense to patent infringement. [HN16] A determination of obviousness requires two steps. First, claim construction is a question of law for the court. This court's Markman opinion construed the claims. *SDS v. Ken Specialties*, 107 F. Supp. 2d 574 (2000). Next, the fact-finder compares the construed claim to the prior art. *Rockwell Int'l Corp. v. United States*, 147 F.3d 1358, 1362 (Fed. Cir. 1998). 35 U.S.C. § 103 guides the analysis. [*542]

A. Obviousness Test

[HN17]

Under 35 U.S.C. § 103:

"[a] patent may not be obtained (and is invalid for obviousness) ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. [**23]"

35 U.S.C. § 103; See also *In re O'Farrell*, 853 F.2d 894, 902 (Fed. Cir. 1988). [HN18] To determine obviousness, the invention is considered as a whole, and the claims considered in their entirety. *Kahn v. General Motors Corp.*, 135 F.3d 1472, 1480 (Fed. Cir.) *cert. denied*, 525 U.S. 875, 142 L. Ed. 2d 144, 119 S. Ct. 177 (1998), *citing Medtronic, Inc. v. Cardiac Pacemakers, Inc.*, 721 F.2d 1563, 1567 (Fed. Cir. 1983).

B. Obviousness Findings

1. Scope and Content of the Prior Art

The '919 patent is a continuation of U.S. Patent No. 5,787,750 ("the '750 patent"). As such, the prosecution history of the '750 patent is related to the validity and enforceability of the '919 patent. *Abtox Inc v. Exitron Corp.*, 122 F.3d 1019, 1027 (Fed. Cir. 1997).

Defendant points out that the patent examiner issued a double patenting rejection of the claims of the '919

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patent filed over the '750 patent. [HN19] The non statutory double patenting rejection is a judicially-created doctrine grounded in public policy to prevent the unjustified or improper timewise extension of the 'right to exclude' granted by a patent and to prevent [**24] possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046 (Fed. Cir. 1993).

According to defendant, the findings of the Patent Examiner which rejected the claims of the '919 patent on the basis of the "double patenting rejection" doctrine renders the claims of the '919 patent obvious. Plaintiff counters that one must first assume that the same patent examiner examined both patents and was right the first time and wrong the second time. (Plaintiff Br. 8). Also, according to Plaintiff, one must also assume that the only difference between the '919 patent and the references relied upon by the examiner was the presence of "at least two folding members." However, the claims of the '919 patent were not distinguished over prior art based on the number of folding members, instead, there were other elements present in the claims that made them patentable over the art. (Plaintiff Br. 8, citing Garbell Decl. Exh. 1, enclosing pages 14-18 of Plaintiff's Markman brief). Plaintiff seeks to turn aside defendant's "double-patenting rejection" argument because an obviousness type double-patenting rejection relates to the obviousness of the claimed invention relative [**25] to an earlier patent by the same applicant, not to the prior art. (See Manual of Patent Examining Procedure § 804 (7th Ed. 1998), attached to Garbell Decl. as Exh. 2).

2. Obviousness on the Basis of *Tyler* and *Tuit*

Ken argues that Claim 1 of the '919 patent is obvious over Tyler (U.S. Patent No. 5,461,893 (attached to Cobrin Decl. as Exh. G), and Tuit (U.S. Patent No. 3,420,279 (attached to Cobrin Decl. as Exh. D).

It should be noted that [HN20] the '919 patent is presumed to be valid by statute. See 35 U.S.C. § 282. The rationale for the presumption lies in the expertise of the PTO to make the "technical factual determinations underlying the patent process." *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1574-75 (Fed. Cir. 1992). [HN21] A party challenging the validity of a patent has the burden of persuasion and must show clear and convincing evidence to prevail. *Buildex v. Kason Indus. Inc.*, 849 F.2d 1461, 1463 (Fed. Cir. 1988). Moreover, [HN22] the presumption of validity is "most formidable" when the party asserting invalidity relies only [*543] upon prior art already considered by the PTO (emphasis added). [**26] *Central Soya Co. v. Geo A. Hormel & Co.*, 723 F.2d 1573, 1577 (Fed. Cir. 1983). Here both the Tyler and Tuit references were considered by the PTO when deciding that the claims of the '919 patent were both novel (35 U.S.C. § 102) and non

obvious (35 U.S.C. § 103). Thus, the "most formidable" burden applies.

And with this heavy burden, Ken fails. Ken concedes that alone, Tyler and Tuit do not render Claim 1 of the '919 patent obvious. Defendant only asserts that almost all of the elements of Claim 1 of the '919 patent were disclosed in the Tyler and Tuit references. But this is not enough, because [HN23] references to render a claim obvious must teach or suggest all claim limitations. *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 164 (Fed. Cir. 1985). Tyler and Tuit, for example, do not teach a structure whereby the elongate member engages both the first and second rotary bodies, which is part of the '919 patent. n1

n1 See Plaintiff Br. 11-13. Plaintiff complains that Ken's expert to advance the rest of the obviousness claims was unqualified to render an opinion because he is an expert in the diecutting and diemaking industry, not in general metal bending. Also, Plaintiff contends that his opinions were based on legal conclusions without supporting evidence. (Plaintiff Br. 13).

[**27]

3. Obviousness Based on "New Matter"

Section 132 of the Patent Act provides: [HN24] "no amendment shall introduce new matter into the disclosure of the invention." 35 U.S.C. § 132. [HN25] The fundamental inquiry is whether the material added by amendment was inherently contained in the original application. See *Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1438 (Fed. Cir. 1984). 37 CFR § 1.121(a)(6) explains [HN26] that an existing patent application may not be amended by adding new matter (i.e. it loses its date of priority). The Manual of Patent Examination and Procedure (MPEP) defines "new matter" as:

[HN27]

Matter not in the original specification, claims or drawings is usually new matter. Depending on the circumstances such as the adequacy of the original disclosure, the addition of inherent characteristics such as chemical or physical properties, a new structural formula or a new use may be a new matter.

MPEP § 608.04(a) (citing *Ex parte Vander Wal*, 109 U.S.P.Q. (BNA) 110 (Bd. App. 1955)).

[HN28] The new matter prohibition is closely related to the adequate disclosure requirements of 35 U.S.C. § 112. See *Pennwalt Corp. v. Akzona Inc.*, 740 F.2d 1573, 1578 (Fed. Cir. 1984). [**28] Section 112 requires:

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"a written description of the invention and the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art ... to make and use the same."

35 U.S.C. § 112 (1994). To avoid the new matter prohibition, an applicant must show that its original application supports the amended matter. See *Kolmes v. World Fibers Corp.*, 107 F.3d 1534, 1539 (Fed. Cir. 1997).

The issue of new matter arises in this case because of the examiner's position that the written description requirement was not adhered to in the application as originally filed. (Def. Opp. Obviousness Br. 17). Defendant argues that insertion 'Japan' before 'Patent No. 80607' in the '750 patent constitutes new matter. According to defendant, because the '919 patent is a continuation of the '750 patent, the '919 patent is only entitled to a filing date of October 1997, the date 'Japan' was inserted. And if October 1997 is the correct "priority date" plaintiff's commercial sales in March of 1997 render the '919 patent obvious.

Plaintiff counters that Ken's new matter argument relates only [**29] to claim 12 which includes a "cutter." (Plaintiff Br. 14, citing [*544] Garbell Exh. 4, col. 2, In. 59). Entry of a new matter only possibly affects claims that depend on that "new matter." See *Waldemar Link, GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 558 (Fed. Cir. 1999). Because defendant's new matter argument does not affect Claims 1-11, which do not require a cutter, those claims are entitled to the benefit of the Korean filing date (June 22, 1995).

Indeed, Ken did not assert obviousness as to claims 2-11. As for Claim 1, defendant's obviousness defense is useless because even if some of the claim limitations are revealed in the Tyler and Tuit patents, Ken does not meet the "formidable burden" of demonstrating that the '919 patent teaches all claim limitations in the Tyler and Tuit patents. As for claim 12, Defendant argues that the omission of 'Japan' from 'Patent No. 80607' made it that one skilled in the art could not practice the invention as required under 35 U.S.C. § 112. (Def. Opp. Br. 19). The PTO rejected the original patent application because it was not enabling -- that is, it did not disclose a cutter. Id. at 21. Defendant [**30] argues that this means that the disclosure must be complete and enabling as of the filing date. If it is not, the "critical date" should be moved to the date when the application was enabling. See *White Consol. Indus., Inc. v. Vega Servo-Control, Inc.*, 713 F.2d 788 (Fed. Cir. 1983). According to defendant, the application was not enabling until the inventor substituted the word, "Japan" Id. at 22.

It is important to note that defendant's "new matter" argument was rejected by this court in a March 27, 2000 hearing when the Court found that [HN29] geographic changes were appropriate matters for certificates of correction, and were not akin to an attempt to broaden the patent claims which would necessitate a reissue application. (Plaintiff Br. 15, *citing* Garbell Decl. Exh. 5 at 25). Both this court and the PTO did not consider geographic changes to be "new matter" because the change did not affect any claims dependent on that new matter, as is required. In addition, Ken's argument that plaintiff's March 1997 sales of commercial embodiments render the patent obvious is futile because sale of an inventor's commercial embodiment in March 1997 cannot render a patent with [**31] a filing date of October 1997 invalid under either 35 U.S.C. §§ 102 or 103, since the sale must be more than one year before the filing date. See 35 U.S.C. § 102(b). Even if the sale was a year after the filing date, defendant's obviousness argument about new matter still fails because the geographic name change does not constitute new matter.

So Ken is now left to assert that the previous Tyler and Tuit patents render the '919 patent obvious. However, this argument fails because, to repeat, for an obviousness finding the prior art must teach all of the claims. *Litton Indus. Prods.*, 755 F.2d at 164. The Tyler and Tuit patents teach only some of the claims and omit teaching a structure whereby the elongate member engages two rotary bodies. It follows then that the requirements for 35 U.S.C. § 103 are not met; Ken's obviousness defense falls.

4. Ken's Best Mode Defense

Defendant also moves for summary judgment for non-infringement based on the best mode defense because the inventor: 1) failed to disclose ability to bend ribbon stock of different thickness (interchangeability); and [**32] 2) failed to disclose that the driving unit should be placed below the bending area (driving unit arrangement). Under 35 U.S.C. § 112:

"[HN30] The specification shall contain a written description of the invention, and of the manner and process of making and using it ... and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112. "[HN31] The best mode requirement is intended to ensure that a patent applicant plays fair and square with the patent system ... one must not receive [*545] the right to exclude others unless at the time of filing one has provided an adequate disclosure of the best mode known to him or her of carrying out the invention."

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Bristol-Myers Squibb Co. v. Boehringer Ingelheim Corp., 85 F. Supp. 2d 420, 422 (citations omitted) (D.N.J. 2000).

[HN32] In order to find a best mode violation, the record must show that at the time of filing the inventor considered one mode to be superior over those modes disclosed in the specification, with respect to the claimed invention. Minco, Inc. v. Combustion Eng'g, 95 F.3d 1109 (Fed. Cir. 1996) (inquiry [**33] is entirely subjective); Young Dental Mfg. Co. v. Q3 Special Prods., Inc. 112 F.3d 1137, 1144 (Fed. Cir. 1997). The defendant has the burden to show by "clear and convincing evidence" a best mode violation. Minco, 95 F.3d at 1115.

Does section 112 cover elements not specifically claimed by the inventions? [HN33] In general, "the best mode inquiry is directed to what the applicant regards as the invention, which in turn, is measured by the claims." Engel Indus., Inc. v. Lockformer Co., 946 F.2d 1528, 1532 (Fed. Cir. 1991). Unclaimed elements, however, "may also be subject to the [best mode] requirement if they are necessary to implement the claimed invention." Access Solutions Int'l, Inc. v. Data/Ware Develop., Inc., 70 F. Supp. 2d 92, 98 (D.R.I. 1999). The Federal Circuit agrees: "Indeed, most of the cases in which we have said that the best mode requirement was violated addressed situations where an inventor failed to disclose non-claimed elements that were nevertheless necessary to practice the best mode of carrying out the claimed invention." Chemcast Corporation v. Arco Indus. Corp., 913 F.2d 923, 928 (Fed. Cir. 1990). [**34]

There are boundaries, however, to the best mode defense. The Federal Circuit allows that "[HN34] an inventor is not required to supply [all] production specifications." See Wahl Instruments v. Acvius, Inc., 950 F.2d 1575, 1579 (Fed. Cir. 1991).

Indeed the inventor's manufacturing materials or sources ... used to make a device may vary from wholly irrelevant to critical. For example, if the inventor develops or knows of a particular method of making which substantially improves the operation or effectiveness of his invention, failure to disclose such peripheral development may well lead to invalidity.

Id. However, there the court found that the information missing in the patent application "was no more than a routine manufacturing choice" and concluded that there was no evidence that "the working of the invention ... was affected in any way by" the type of material used to join the two halves of the invention. *Id.* This holding embodies [HN35] the general rule that a best mode violation exists only where the undisclosed method

affects "how well [the invention] works." See Advanced Semiconductor Materials of America, Inc. v. Applied Materials, Inc., 922 F. Supp. 1439, 1443 (N.D. Cal. 1996); [**35] Zygo Corp v. Wyko Corp., 79 F.3d 1563, 1567 (Fed. Cir. 1996) (failure to describe packaging of invention for commercial use was not a violation of § 112).

A. The "Priority Date" Governs Best Mode Analysis

Before examining the alleged best mode violations at issue, the Court will determine if there is an issue of the "priority date" of the '919 patent, the date the patent was filed, because [HN36] analysis of a best mode violation begins with the date the patent application was filed. Transco Prods., Inc. v. Performance Contracting, Inc., 38 F.3d 551, 557-58 (Fed. Cir. 1994).

The parties disagree about the priority date. The '919 patent was a continuation of the '750 patent. [HN37] Under 35 U.S.C. § 120, a continuation patent is entitled to the benefit of the filing date of an earlier filed application if the subject matter of the claim is disclosed in the manner provided by 35 U.S.C. § 112. [HN38] Under 35 U.S.C. § 119, the claims in a U.S. application are entitled to the benefit of a foreign priority date, [*546] or the filing date if the corresponding foreign application supports the claims in the [**36] manner required by 35 U.S.C. § 112. Transco, 38 F.3d at 558.

The date of the Korean patent application was June 22, 1995, and Plaintiff contends that is the critical date for measuring any best mode violation. However, Ken argues that the priority date of the '919 patent must be moved from June 1995 to October 1997 because changing the name of the Korean patent to 'Japan' resulted in the introduction of new matter because without this reference, one skilled in the art could not practice the patent.

[HN39] 37 CFR § 1.121(a)(6) explains that an existing patent application may not be amended by adding new matter (it loses its date of priority). Plaintiff argues that mere insertion of the word 'Japan' does not constitute new matter. Ken counters that the Patent and Trademark Office (PTO) could not determine what 'Patent No. 80607' referred to, and that the disclosure could not enable one with skill in the art to practice the invention, as required under 35 U.S.C. § 112.

To support its position, defendant points to the fact that the PTO rejected the original patent application as not enabling because it did not disclose a cutter. [**37] The Markman opinion held that the disclosure of the '919 patent is not limited to the cutter in patent no. 80607, but can be used with any cutter. Ken argues that such a construction would have to be supported by the

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specification. See, e.g., *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed. Cir. 1988) (noting that what is patented "is defined by the words in the claims if those claims are supported by the specification in the manner required by 35 U.S.C. § 112.") Ken argues that given claim construction, there is at least a genuine issue of material fact as to whether the certificate of correction that added "Japan" to the patent constituted a new matter to require a 1997 filing date. To determine whether the certificate of correction constituted new matter requires analysis of a recent Federal Circuit decision, *Southwest Software v. Harlequin, Inc.*, 226 F.3d 1280 (Fed. Cir. 2000) recently decided.

1. Certificate of Corrections Under Southwest Software

[HN40] Certificate of corrections which arise from the fault of the applicant, as here, are governed by 35 U.S.C. § 255:

[HN41]
Certificate of [38] correction of applicant's mistake**

Whenever a mistake of a clerical or typographical nature, or of minor character, which was not the fault of the Patent and Trademark Office, appears in the patent and a showing has been made that such mistake occurred in good faith, the Director may, upon payment of the required fee, issue a certificate of correction, if the correction does not involve such changes in the patent as would constitute new matter or would require reexamination. Such patent, together with such certificate, shall have the same effect and operation in law on the trial of actions for causes thereafter arising as if the same had originally been issued in such corrected form.

35 U.S.C. § 255. The parties disagree about the application of section 255. The Federal Circuit has recently confronted the effect of certificates of correction in *Southwest Software*. Southwest Software owned U.S. Patent No. B1 5,170,257 (the " '257 patent") which was used in the printing industry to enhance the quality of printed images. Id. at 1282. Southwest Software alleged that Harlequin literally infringed its patent by its 'ScriptWorks Revision 6,' a [**39] similar product that enhanced the quality of printed images. Id. at 1283. In opposing a claim of patent infringement, Harlequin noted that there was missing from the certified copy of the '257 patent a "Program Printout Appendix" containing PostScript code for the calibration feature of the invention. Id. at 1287. On that basis, Harlequin moved for summary judgment that omission of the "Program Printout Appendix" rendered [*547] several of the

patent claims invalid for failure to meet the best mode and enablement requirements of 35 U.S.C. § 112.

The District Court entered judgment in favor of the patentee, Southwest Software, for patent infringement, literally and under the doctrine of equivalents. Id. at 1282. Harlequin appealed. The Federal Circuit held that: (1) the evidence was sufficient to establish that defendant's revised software was non-infringing; (2) the Patent and Trademark Office validly issued the certificate of correction to correct omission from patent of appendix containing relevant software code; (3) addressing an issue of first impression, a certificate was effective only for causes of action arising after it was issued; and (4) the [**40] district court's failure to construe the claim limitation required vacation of the judgment and remand for further proceedings.

The only issue relevant to our discussion case is whether a certificate of correction is effective only for causes of action arising *after* it was issued. In *Southwest Software*, the patentee requested that the PTO issue a certificate of correction for the patent under 35 U.S.C. § 254. The Certificate was issued, adding the "Program Printout Appendix" to the patent. Id. at 1287. Harlequin moved for summary judgment that the Certificate was invalid, and even if validly issued, was not valid in that case, because under the express language of 35 U.S.C. § 254, a certificate of correction is effective only for causes of action arising after issue. Id. at 1293-94. According to Harlequin, because Southwest filed its lawsuit January 20, 1995, and the certificate of correction was not issued until April 1, 1997, the certificate had no effect. Id. Southwest responded that the certificate of correction should be treated as if it were effective on the day the patent issued, and that any other result would [**41] nullify the language of section 254 that "such certificate shall be considered as part of the original patent." Id. The Federal Circuit found against Southwest and held that the Certificate of Correction was not effective as to a cause of action arising before the Certificate was issued. Id. at 1297.

Therefore, Southwest Software is not applicable here. Southwest Software concluded that a certificate of correction is effective only for causes of action arising *after* the certificate was issued -- which is precisely the case here. Here the complaint was filed by SDS in January 1999, well after the certificate of correction was issued in 1997. Consequently, Southwest Software does not render the certificate of correction in this case ineffective. It is valid, and the effective date of the patent remains in 1995; Plaintiff has not committed a best mode violation on the basis of the certificate of correction.

B. Inventor's Knowledge of Superiority of One Mode

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[HN42] To determine whether a best mode violation exists, the first inquiry is the inventor's subjective knowledge. If at the time the patent application was filed, the inventor had subjective knowledge of [**42] the best mode of carrying out an invention, and did not disclose it in the patent, he has committed a best mode violation. Plaintiff submits that there is no evidence that the inventor, Brian Song, ever considered either interchangeability or driving unit arrangements to be better modes of carrying out the 1995 invention.

According to Plaintiff, there can be no best mode violation absent clear and convincing evidence that the inventor knew of and appreciated, at the critical filing date, the superiority of one mode over those modes disclosed in the specification. Minco, 95 F.3d at 1116. On Plaintiff's submission, the evidence shows that Mr. Song was not aware of the alleged best modes until after the critical date of June 1995. Defendant answers that there is no specific intent requirement for a best mode violation and that a patent can be invalidated even if the failure to disclose the best mode is inadvertent. See United States Gypsum Co. v. National Gypsum Co., 74 F.3d 1209, 1215 (Fed. Cir. 1996). Plaintiff argues that whatever test is adopted, defendant [*548] must still prove that the inventor knew of a best mode at the time of filing the patent application, [**43] yet failed to disclose it. The only reference defendant makes to the inventor's knowledge is to testimony that the '919 patent covers Plaintiff's EasyBender device, a commercial device embodying the invention. (Ken Br. 9).

However, [HN43] commercial embodiments are not equivalent to the best mode of a claimed invention. Zyglo Corp. v. Wyko Corp., 79 F.3d 1563, 1567 (Fed. Cir. 1996). Besides, the EasyBender device depicted in Ken's exhibits is a commercial embodiment manufactured well after the critical date, having been manufactured on January 29, 2000, as revealed in the Warshavsky Decl. Exh. D. (Plaintiff Br. 6-7). The commercial embodiment contains features (including the interchangeability and driving unit arrangement features) that were first considered by the inventor and incorporated into the EasyBender device well after the critical date. The interchangeability feature was first considered by the inventor in April 1997. (Plaintiff Br. 7 citing Brian Song Decl. at 12). The first EasyBender device available with this feature was the subject of a July 1997 purchase order. (Id., citing Brian Song Decl. at 12; Simon Song Decl. at 2). The driving unit was not placed [**44] below the bending area at the time Mr. Song filed the Korean patent application (See B. Song. Decl. at 4). It was first placed beneath in early 1996 (Id. citing Brian Song Decl. at 7 and 8.) According to SDS, Ken has no evidence to prove that both of the alleged best modes are features that the inventor was aware of in June 1995, the

critical date. Hence, these features are therefore irrelevant to best mode analysis. See Engel Industries v. Lockformer, Co, 96 F.3d 1398, 1407 (Fed. Cir. 1996).

C. Interchangeability and Driving Unit are Not Subject to Best Mode Because They are Commercial Enhancements

The interchangeability and driving unit features are not subject to best mode analysis because they were commercial embodiments created after the patent was filed. [HN44] Best mode inquiry is directed to what the applicant regarded as the invention at the time of filing, which in turn is measured by the claims. Zyglo, 79 F.3d at 1567. However, best mode analysis is not strictly limited to claim limitations. Bristol-Myers Squibb Co. v. Boehringer Ingelheim Corp., 85 F. Supp. 2d 420, 422 (D.N.J. 2000) ("Unclaimed elements, however, 'may [**45] also be subject to the [best mode] requirement if they are necessary to implement the claimed invention.'").

Defendant argues that the interchangeability and driving unit features are unclaimed elements subject to the best mode requirement. (Ken Br. 2) However, there are boundaries to the unclaimed element requirements. Bristol-Myers Squibb Co. v. Boehringer, 85 F. Supp. 2d at 422. [HN45] The best mode requirement, "has nothing to do with mass production, or with sales to customers having particular requirements." Christianson v. Colt Indus. Operating Corp., 822 F.2d 1544, 1563 (Fed. Cir. 1987), vacated on jurisdictional grounds and remanded, 486 U.S. 800, 100 L. Ed. 2d 811, 108 S. Ct. 2166 (1988) (holding that "since interchangeability with M-16 parts appears nowhere as a limitation in any claim ... the best mode for making and using and carrying out the claimed invention does not entail or involve interchangeability"). The unclaimed elements requirement also does not relate to routine details that are apparent to one of ordinary skill in the art. See Young Dental Mfg. Co., 112 F.3d at 1144.

Plaintiff asserts that the ability to bend ribbon stock of different [**46] thickness by providing interchangeable nozzles is not related to a best mode of practicing the claimed invention. While the claimed invention relates to a novel bending mechanism, the interchangeable nozzles relate to certain sales with customers with particular requirements (Plaintiff Br. 10). Plaintiff advertises [*549] machines that accommodate only one thickness of ribbon stock (Id., citing Gilman Decl. Exh. 8; S. Song. Decl. at 3) because most customers only require a bending system that bends one size. (See id.) Their interchangeability feature is relevant only to the needs of a particular segment of customers and has nothing to do with the claimed invention. See Christianson, 822 F.2d at 1563.

Plaintiff also argues that the placement of the driving unit beneath the bending area also has no relation to the claimed invention, as it does not affect how the bending apparatus operates to bend metal. (Plaintiff Br. 10). A best mode violation exists only when the undisclosed element affects how the invention works. (See Bristol-Myers Squibb, 85 F. Supp. 2d at 423. The '919 patent would work for its intended purpose regardless of the arrangement [**47] of the driving unit with respect to the bending area. (Id. citing B. Song. Decl. at 10). Ken even concedes that the placement of the bending apparatus relates only to aesthetic appearance and possibly safety. (See Ken Br. at 21.) According to Ken, the placement of the driving unit beneath the bending area would have the aesthetic effect of hiding a number of wires and hoses that were otherwise visible. The possible safety issue is that because the driving unit has movable parts someone could be injured. (Ken Br. at 21; B. Song. Decl. at 10). Courts recognize that it is impractical for an inventor to disclose every possible aesthetic or safety issue to avoid a best mode defense. Plaintiff argues that under those circumstances, an inventor would have to also set forth his favorite color for his machine to avoid a best mode defense. The absurdity of this result is one reason why courts do not consider commercial uses when reviewing best mode. See Zygomatic Corp., 79 F.3d at 1567 ("The focus of a [best mode] inquiry is not what a particular user decides to make and sell ... ")

Defendant's best mode defenses based on the interchangeability and driving unit features [**48] cannot be accepted by the Court because these features were introduced after the filing date of the patent for commercial reasons, and were not part of the claims. Even if considered "unclaimed elements," they are not subject to defendant's attack because best mode has nothing to do with sales to customers having particular requirements, or commercial embodiments. Best mode will serve as a defense only when it is not apparent to one of ordinary skill in the art and was not revealed as the best mode.

5. Ken's Supplemental Reply Brief of Non-Infringement for the "Split-Pin" Multi-Bender

Ken has filed a "Supplemental and Reply Brief" which alleges non-infringement of the '919 patent due to its new "Split-Pin" Multi-Bender machine. The parties disagree mightily as to the propriety of Ken's filing. At the outset, pursuant to Local Rule 7.1, this Court does not permit Supplemental and Reply Briefs.

In a follow-up deposition of Dale Kengott, president of Ken Specialties, Mr. Kengott testified for the first time about a new "split-pin bending mechanism" -- a change

implemented by Ken's Korean supplier because of a patent injunction in Korea. (Kengott 6/14/00 Dep. at 455). [**49] Mr. Kengott had known about the change since early May 2000, but had not yet seen it. See id. at 455-56. Ken's customers were not told of the split-pin bending mechanism. Id. at 463. Ken designated the split-pin bending mechanism as confidential (Id. at 460), and despite Ken's obligation to remove confidential designations where such description is inappropriate, the design remains confidential.

Plaintiff's counsel attempted to find out more about the split-pin bending mechanism, but was refused by Ken's counsel, who cited "confidentiality." Ken has not supplemented a single interrogatory answer or document request with regard to the new split-pin bending mechanism. Because of these discovery abuses, plaintiff [*550] suggests that defendant's "Supplemental and Reply Brief" be stricken.

Even if this Court does not strike Ken's submission, it fails for a more fundamental reason: Ken admitted that the new split-pin machine is not part of the present litigation. It stated that the split-pin bending mechanism "is not accused of infringement, has not been sold and is not relevant to any issues regarding infringement of the old design." (See Plaintiff Letter Brief, August 31, 2000, Exhibit [**50] 2, attaching a June 30, 2000 letter from defendant's counsel). By Ken's own admission, the new split-pin bending machine is not part of this litigation.

Plaintiff asserts that this Court does not have jurisdiction over Ken's summary judgment motion for the split-pin bending mechanism. The Court agrees. Spectronics Corp. v. H.B. Fuller Co., 940 F.2d 631 (Fed. Cir. 1991) was an appeal of a dismissal of a declaratory judgment action of invalidity or non-infringement of a patent. Id. at 632. The Court noted that the long-established rule is that [HN46] a declaratory judgment plaintiff must establish an actual controversy on the "totality of the circumstances." Id. at 634, *citing* Maryland Casualty Co. v. Pacific Coal & Oil Co., 312 U.S. 270, 272, 85 L. Ed. 826, 61 S. Ct. 510 (1941).

[HN47] In cases involving a declaratory judgment of patent non-infringement or invalidity, the test for determining whether an actual controversy exists is two-pronged. First, the accused infringer must have actually produced or prepared to produce an allegedly infringing product. 940 F.2d at 634 (citations omitted). The first prong "looks to the accused [**51] infringer's conduct and ensures that the controversy is sufficiently real and substantial." Id. (Citations omitted). Second, the patent holder's conduct must create an objectively reasonable apprehension on the part of the accused infringer that the patent holder will initiate suit if the allegedly infringing activity continues. Id. (Citations omitted). If these prongs

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are not met, the court is divested of jurisdiction. Id. at 633 (Where plaintiff cannot demonstrate an objectively reasonable apprehension that it will face infringement, the Court is divested of jurisdiction).

Here, both prongs are not satisfied. The first prong is not met because it cannot be said that Ken produced or is prepared to produce the allegedly infringing product. Ken's president admitted that he had not seen the new Split-Pin Multi-Bender machine, so it cannot be alleged that Ken knew that this machine infringed SDS' machine. Further, SDS' lawsuit asserted that Ken's *original* Multi-Bender machine infringed its EasyBender machine. SDS did not know and could not find out about the split-pin machine because it was "confidential." SDS had not conducted any discovery on this new machine. A few [**52] questions in Dale Kengott's June 14, 2000 deposition, and Kengott's rough sketch of a machine which he admittedly had never seen, does not count as meaningful discovery. The second prong also is not met. Ken did not have a "reasonable apprehension" that SDS would file suit on the basis of the new split-pin machine. Until Dale Kengott's June 14, 2000 deposition, SDS had

not heard of this new machine, so it could not have contemplated that this new machine infringed its EasyBender machine. Simply said, the new "Split-Pin" Multi-Bender machine is not, and never has been, part of this lawsuit. In accordance with Spectronics, this Court does not have jurisdiction to hear Ken's motion for non-infringement based on the "Split-Pin" Multi-Bender machine.

CONCLUSION

For the foregoing reasons, plaintiff's motion for summary judgment for literal infringement is granted; defendant's motion for partial summary judgment for non-infringement on the basis of its obviousness and best mode defenses is denied; defendant's motion for declaratory judgment [*551] of non-infringement of its new split-pin bending machine is also denied.

William H. Walls, U.S.D.J.

11/28/00

Dated [53]**

SDS USA, INC., Plaintiff, v. KEN SPECIALTIES, INC., Defendant.

Civ. Action No. 99-133

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

107 F. Supp. 2d 574; 2000 U.S. Dist. LEXIS 11119

August 3, 2000, Decided

DISPOSITION:

[**1] Ken's motion for leave to file a sur-reply memorandum denied. Ken's motion to preclude his testimony concerning issues unique to that field granted. Motion by defendant Ken Specialties for summary judgment that the '919 patent invalid for indefiniteness and failure to satisfy the written description requirement denied.

CASE SUMMARY

PROCEDURAL POSTURE: Defendant corporation moved for summary judgment asserting plaintiff corporation's patent was invalid for indefiniteness, 35 U.S.C.S. § 112, P 2, and for failure to satisfy the written description requirement, 35 U.S.C.S. § 112, P 1, and both parties requested a Markman ruling to construct plaintiff's patent claims.

OVERVIEW: The court rejected defendant's indefiniteness argument under 35 U.S.C.S. § 112, para. 2, finding the phrase "ribbon stock" in the claims had an understandable meaning referring to metal rule, the material from which the preferred-embodiment "cutting blade" was constructed, and holding that use of "ribbon stock" in the claims, though not in the specification, did not defeat definiteness. The court further determined that plaintiff had satisfied the written description requirement of 35 U.S.C.S. § 112, para. 1, holding that its premise, that because certain terms were not used in the original application, they were therefore never defined by the patent, was unsound, as a person of ordinary skill in the art would readily recognize that plaintiff's invention involved steel rule/ribbon stock. The court construed plaintiff's patent in favor of plaintiff, holding that use of the phrase "at least one" elongate member, together with the doctrine of claim differentiation, supported a reading that plaintiff's "at least one" language included an

invention with only one elongate member, and, lastly, found that the phrase "transferring unit" connoted structure, and not function.

OUTCOME: The court denied defendant's motion for summary judgment, holding it was neither invalid for indefiniteness nor for failure to satisfy the written description requirement, and construed plaintiff's patent as set forth in the opinion, rejecting defendant's indefiniteness defense based upon the patentee's failure to use the exact same words of the claims in the patent's specifications.

LexisNexis(TM) HEADNOTES - Core Concepts

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN1] Summary judgment is appropriate where the moving party establishes that there is no genuine issue as to any material fact and that it is entitled to a judgment as a matter of law. Fed. R. Civ. P. 56(c).

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN2] A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, under the substantive law, it would affect the outcome of the suit.

Civil Procedure > Summary Judgment > Burdens of Production & Proof

[HN3] The party moving for summary judgment must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the non-moving party to carry its burden of proof.

Civil Procedure > Summary Judgment > Burdens of Production & Proof

[HN4] Once the moving party has carried its burden under Fed. R. Civ. P. 56, its opponent must do more than simply show that there is some metaphysical doubt as to the material facts in question. The opposing party must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings.

Civil Procedure > Summary Judgment > Summary Judgment Standard

[HN5] At the summary judgment stage the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. In doing so, the court must construe the facts and inferences in the light most favorable to the non-moving party.

Patent Law > Specification & Claims > Definiteness

[HN6] See 35 U.S.C.S. § 112, para. 2.

Patent Law > Specification & Claims > Definiteness

[HN7] Satisfaction of the definiteness requirement under 35 U.S.C.S. § 112, para. 2 is a question of law.

Patent Law > Infringement > Defenses > Invalidity

[HN8] A patent is presumed valid, 35 U.S.C.S. § 282, and any challenger must produce clear and convincing evidence to overcome that presumption.

Patent Law > Specification & Claims > Definiteness

[HN9] The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, 35 U.S.C.S. § 112 demands no more.

Patent Law > Specification & Claims > Definiteness

[HN10] The degree of precision needed to meet the definiteness requirement varies with the nature of the subject matter.

Patent Law > Specification & Claims > Definiteness

[HN11] Though a court usually seeks the conventional definitions of terms, a patentee is free to act as his or her own lexicographer. Accordingly, to determine definiteness the court must scrutinize the way one of skill in the art would interpret the claims in view of the written description portion of the specification, and usually limit the inquiry to such evidence. As in a Markman analysis, the court first examines the intrinsic evidence, the language in the patent claim and

specification, and turns to extrinsic evidence only if the intrinsic evidence is insufficient to enable the court to construe disputed claim terms.

Patent Law > Specification & Claims > Definiteness

[HN12] Failure to "match" the terms of the claims to the phrases used in the patent specification is legally irrelevant to the indefiniteness defense, inasmuch as 35 U.S.C.S. § 112 does not require an inventor to use the exact same words in both the specification and the claims. What the court must determine is whether the language used by the inventors in the patent's claims clearly and adequately set forth what is claimed in the invention, whether the language is consistent with the language used in the patent's specification, and whether the language is reasonably clear in its meaning.

Patent Law > Specification & Claims > Description Requirement

[HN13] If an inventor applies for a patent in a foreign country, and files an application in the United States within one year, the American application shall have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country, provided that the written description requirement is satisfied.

Patent Law > Specification & Claims > Description Requirement

[HN14] The test for compliance with the written description requirement is requires that although the applicant does not have to describe exactly the subject matter claimed, the description must clearly allow persons of ordinary skill in the art to realize that the applicant invented what is claimed.

Patent Law > Specification & Claims > Description Requirement

[HN15] Ipsi verbis disclosure is not necessary to satisfy the written description requirement of 35 U.S.C.S. § 112, para. 1. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question.

Patent Law > Infringement > Claim Interpretation

[HN16] The construction of patent claims is a matter of law exclusively for the court

Patent Law > Infringement > Claim Interpretation

[HN17] The standards for claim construction require that the court look first to the "intrinsic evidence," which consists of the patent claims, the specification, and the prosecution history if in evidence. Such intrinsic evidence is the most significant source of the legally

operative meaning of disputed claim language. The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms. Claim construction is not philosophy; it is firmly anchored in reality by the understanding of those of ordinary skill in the art. And though the prosecution history can and should be used to understand the language used in the claims, it may not be used to "enlarge, diminish, or vary" the limitations in the claims.

Patent Law > Infringement > Claim Interpretation

[HN18] In most situations, an analysis of intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence such as expert testimony, treatises and dictionaries, and articles. Accordingly, where the patent documents are unambiguous, expert testimony is entitled to no weight.

Patent Law > Infringement > Claim Interpretation

[HN19] In resolving an ambiguity in a disputed patent claim term, prior art may serve as a guide to the meaning of a disputed term, and particularly as a time-saving demonstration of how a disputed term is used by those skilled in the art.

Patent Law > Infringement > Claim Interpretation

[HN20] Opinion testimony on claim construction should be treated with the utmost caution, because such testimony amounts to no more than legal opinion; it is precisely the process of construction that the court must undertake.

Patent Law > Infringement > Claim Interpretation

[HN21] Use of the phrase "at least one" means that there could be only one or more than one.

Patent Law > Infringement > Claim Interpretation

[HN22] The language of the claim frames and ultimately resolves all issues of claim interpretation.

Patent Law > Infringement > Claim Interpretation

[HN23] Claim language may not be narrowed to preferred embodiments disclosed in the specification.

Patent Law > Infringement > Claim Interpretation

[HN24] In construing a claim, claim terms are given their ordinary and accustomed meaning unless examination of the specification, prosecution history, and other claims indicates that the inventor intended otherwise.

Patent Law > Infringement > Claim Interpretation

[HN25] Dependent claims, which add limitations, are presumed narrower than the independent claims from which they spring.

Patent Law > Infringement > Claim Interpretation

[HN26] A limitation recited in dependent claims does not imply such limitation in independent claims: to the contrary, such is evidence that the broader independent claims do not contain the limitation.

Patent Law > Infringement > Claim Interpretation

[HN27] Where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad.

Patent Law > Infringement > Claim Interpretation

[HN28] The doctrine of claim differentiation teaches that there is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in the meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.

Patent Law > Infringement > Prosecution History Estoppel

[HN29] Arguments made during the prosecution history are relevant in determining the meaning of the terms at issue. The prosecution history of a patent contains: all express representations made by or on behalf of the applicant to the examiner to induce a patent grant. Such representations include amendments to the claims and arguments made to convince the examiner that the claimed invention meets the statutory requirements of novelty, utility, and nonobviousness. Thus, the prosecution history, or file wrapper, limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.

Patent Law > Infringement > Prosecution History Estoppel

[HN30] The doctrine of "prosecution history estoppel," sometimes called "file-wrapper estoppel," precludes a patentee from obtaining in an infringement suit protection for subject matter which it relinquished during prosecution in order to obtain allowance of the claims. It is typically invoked to bar or limit a patentee's assertions of infringement under the doctrine of equivalents.

Patent Law > Infringement > Doctrine of Equivalents

Patent Law > Infringement > Prosecution History Estoppel

[HN31] The doctrine of "prosecution history estoppel" is not squarely applicable to the claim construction context, but has a close variant: interpreting claims in view of the prosecution history applies as a preliminary step in determining literal infringement; prosecution history estoppel applies as a limitation to the doctrine of equivalents after the claims have been properly interpreted and no literal infringement is found.

Patent Law > Specification & Claims > Claim Language

[HN32] See 35 U.S.C.S. § 112, para. 6.

Patent Law > Specification & Claims > Claim Language

[HN33] A claim deserves means-plus-function treatment when expressed as a means for performing a specified function without the recital of structure or material in support thereof.

Patent Law > Specification & Claims > Claim Language

[HN34] 35 U.S.C.S. § 112, para. 6 language permits a patent applicant to express an element in a combination claim as a means for performing a function. The applicant need not recite structure, material, or acts in the claim's means-plus-function limitation. The second clause of the paragraph, however, places a limiting condition on an applicant's use of means-plus-function language. A claim limitation described as a means for performing a function, if read literally, could encompass any conceivable means for performing the function. This second clause confines the breadth of the protection otherwise permitted by the first clause. The applicant must describe in the patent specification some structure which performs the specified function. 35 U.S.C.S. § 112, para. 6 limits the applicant to the structure, material, or acts in the specification and their equivalents.

Patent Law > Specification & Claims > Claim Language

[HN35] Use of the word "means" in claims triggers a presumption that the inventor sought to invoke means-plus-function analysis. When an element of a claim does not use the term "means," treatment as a means-plus-function claim element is generally not appropriate.

Patent Law > Specification & Claims > Claim Language

[HN36] The means-plus-function analysis is deceptively simple: the dispositive issue is whether the claims recite structure. Mere incantation of the word "means" in a clause reciting predominantly structure cannot evoke section 35 U.S.C.S. § 112, para. 6. Conversely, the recitation of some structure in a means plus function

element does not preclude the applicability of section 35 U.S.C.S. § 112, para. 6. Therefore, even if "means" language is present, the presumption that 35 U.S.C.S. § 112, P 6 applies is overcome if the claim itself recites sufficient structure or material for performing the claimed function.

Patent Law > Specification & Claims > Claim Language

[HN37] 35 U.S.C.S. § 112, para. 6 is not invoked if a claim either recites sufficient structure for performing the stated function, or if it recites no function corresponding to its stated means.

Patent Law > Specification & Claims > Claim Language

[HN38] Dictionary definitions, not to mention common sense, point to the word "member" as a structural term.

Patent Law > Specification & Claims > Claim Preambles

[HN39] A claim preamble has the import that the claim as a whole suggests for it. Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the United States Patent and Trademark Office and courts give effect to that usage. Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.

Patent Law > Specification & Claims > Claim Preambles

[HN40] To decide whether a preamble recites structural limitations or merely describes the intended use of the invention, courts look to the phrasing of the claim, the specification and drawings. The inquiry involves examination of the entire patent record to determine what invention the patentee intended to define and protect.

Patent Law > Specification & Claims > Description Requirement

[HN41] The article to be worked on, the workpiece, need not be defined in detail, unless such a description is important to the functioning of the apparatus or made necessary by the prior art.

Patent Law > Specification & Claims > Claim Language

[HN42] Particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.

Patent Law > Specification & Claims > Claim Language

[HN43] The mere coincidence that a device takes its name from its function should not convert a claim into the means-plus-function format.

Patent Law > Specification & Claims > Claim Language

[HN44] A patentee may disclose structure, and thus avoid means-plus-function treatment, by including in the patent claims language describing structural limitations.

Patent Law > Specification & Claims > Claim Language

[HN45] Even where structure is not explicitly described in the claims, terms may be used with a well-known meaning to those of skill in the relevant art connotative of structure.

COUNSEL:

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Peter Cobrin, David Denenberg, Orwen Warshavsky, COBRIN & GITTES, New York, NY, for Ken Specialties, Inc., Defendant.

Marvin Gittes, Esq., North Bergen, NJ, for Ken Specialties, Inc., Defendant.

JUDGES:

William H. Walls, U.S.D.J.

OPINIONBY:

William H. Walls

OPINION:

[*576]

INTRODUCTION

U.S. Patent No. 5,870,919 ("'919 patent") issued to plaintiff SDS USA as assignee on February 16, 1999. This patent teaches an "apparatus" (claims 1-7), "method" (claims 8-11) and "system" (claim 12) to aid the mass production of cardboard boxes and similar items. The claimed machine shapes a die from metal rule. The die, later placed in a diecutting machine, is used to [*2] stamp out box blanks from sheet material such as cardboard. The '919 patent issued from U.S. Patent Application No. 49,391 ("'391 application"), which had been filed in March 1998. The '391 application was a continuation of U.S. Patent Application

No. 668,379 ("'379 application"), filed June 1996, which claimed the priority date of a Korean patent application filed in June 1995. The inventor of the '919 patent is Byung-Jun ("Brian") Song, President of SDS.

Defendant Ken Specialties moves for summary judgment that the '919 patent is invalid for indefiniteness, 35 U.S.C. § 112, P 2, and for failure to satisfy the written description requirement, 35 U.S.C. § 112, P 1. Each party requests that the court make a Markman ruling to construct the '919 patent claims.

The court conducted hearings and heard oral argument on July 21 and July 31, 2000. At the outset, the court denied Ken's motion for leave to file a sur-reply memorandum. Ken had also moved in limine to preclude testimony by plaintiff's expert; after a Daubert hearing, the court concluded that SDS' proffered expert Stephen Tricamo was not skilled in the art of diecutting and [*3] diemaking, and granted Ken's motion to preclude his testimony concerning issues unique to that field. However, the court reserved the right to draw upon Dr. Tricamo's expertise in general, universal principles of engineering.

ANALYSIS

1. Summary Judgment Standard

[HN1] Summary judgment is appropriate where the moving party establishes that "there is no genuine issue as to any material fact and that [it] is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c).

[HN2] A factual dispute between the parties will not defeat a motion for summary judgment unless it is both genuine and material. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48, 91 L. Ed. 2d 202, 106 S. Ct. 2505 (1986). A factual dispute is genuine if a reasonable jury could return a verdict for the non-movant and it is material if, under the substantive law, it would affect the outcome of the suit. See Anderson, 477 U.S. at 248.

[HN3] The moving party must show that if the evidentiary material of record were reduced to admissible evidence in court, it would be insufficient to permit the non-moving party to carry its burden of proof. See Celotex v. Catrett, 477 U.S. 317, 318, 91 L. Ed. 2d 265, 106 S. Ct. 2548 (1986). [*4]

[HN4] Once the moving party has carried its burden under Rule 56, "its opponent must do more than simply show that there is some metaphysical doubt as to the material facts in question." Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586, 89 L. Ed. 2d 538, 106 S. Ct. 1348 (1986). The opposing party must set forth specific facts showing a genuine issue for trial and may not rest upon the mere allegations or denials of its pleadings. See Sound Ship Building Co. v. Bethlehem

Steel Co., 533 F.2d 96, 99 (3rd Cir. 1976), cert. denied, 429 U.S. 860, 50 L. Ed. 2d 137, 97 S. Ct. 161 (1976). [HN5] At the summary judgment stage the court's function is not to weigh the evidence and determine the truth of the matter, but rather to determine whether there is a genuine issue for trial. See Anderson, 477 U.S. at 249. In doing so, the court must construe the facts and inferences in the light most favorable to the non-moving [*577] party. See Wahl v. Rexnord, Inc. 624 F.2d 1169, 1181 (3rd Cir. 1980).

2. Indefiniteness

Ken initially proceeds under 35 U.S.C. § 112, P 2: "[HN6] The specification [**5] shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." The purpose of the definiteness requirement is to notify potential competitors whether their inventions infringe the patent. Morton Int'l, Inc., v. Cardinal Chemical Co., 5 F.3d 1464, 1470 (Fed. Cir. 1993). [HN7] Satisfaction of this requirement is a question of law. Exxon Research and Eng'g Co. v. United States, 46 Fed. Cl. 278, 281 (Fed. Cl. 2000). Of course, [HN8] a patent is presumed valid, see 35 U.S.C. § 282, and any challenger must produce clear and convincing evidence to overcome that presumption.

"[HN9] The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. ... If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more." Miles Laboratories, Inc. v. Shandon Inc., 997 F.2d 870, 874-75 (Fed. Cir. 1993) (citations omitted). [HN10] The degree of precision needed to meet the definiteness requirement [*56] varies with the nature of the subject matter. Id. at 875.

[HN11] Though a court usually seeks the conventional definitions of terms, a patentee is free to act as his or her own lexicographer. Beachcombers v. WildeWood Creative Products, Inc., 31 F.3d 1154, 1158 (Fed. Cir. 1994). Accordingly, this court must scrutinize "the way one of skill in the art would interpret the claims in view of the written description portion of the specification" -- and usually limit the inquiry to such evidence. Solomon v. Kimberly-Clark Corp., 216 F.3d 1372, 1379, 2000 WL 867589, at *3-4 and n.4 (Fed. Cir. 2000). As in a Markman analysis, the court first examines the intrinsic evidence (the language in the patent claim and specification), then turns to extrinsic evidence only if the intrinsic evidence "is insufficient to enable the court to construe disputed claim terms." Exxon, 46 Fed. Cl. at 280-84 (citation omitted).

Ken makes indefiniteness arguments based on three phrases found in the '919 patent claims: "ribbon stock," "elongate member" and "transferring unit."

A. Ribbon Stock

Defendant's first argument concerns the term "ribbon stock," found [**7] in each of the 12 claims of the '919 patent. See claims 1-7 (describing a "metallic ribbon stock folding apparatus"), claims 8-11 ("method of folding metallic ribbon stock") and claim 12 (a "system for folding metallic ribbon stock"). Ken argues that ribbon stock constitutes a limitation on each patent claim. Ken Br. at 5. Should the court disagree, Ken nevertheless advances in the alternative that the term must be understood to construct the patent claims. It concludes: "The term 'ribbon stock' does not have an understandable meaning, and as such, *all* of the claims of the '919 patent must be held invalid for indefiniteness." Ken Br. at 5 (emphasis in original).

In its related motion for claim construction, SDS remarks that while the apparatus described in the '919 patent is novel, "there is no suggestion that ribbon stock *per se* is novel. On the contrary, the '919 patent makes clear that at least one form of ribbon stock (i.e., cutting blade) existed in the prior art, as did other devices for folding ribbon stock." SDS Markman Br. at 20. SDS relies on dictionary definitions of the terms "ribbon" and "stock" n1; descriptions of "steel rule stock," "stock," "metal" [*58] "ribbon" and "metal ribbon stock" in purported prior art patents; and the patent examiner's references to "ribbon" in [*578] the prosecution history. Plaintiff concludes: "The only reasonable and appropriate construction of 'ribbon stock' is to include within its scope a supply of continuous metallic material, such as flat cutting blade or even wire ..." SDS Br. at 27.

n1 "The dictionary definition of 'ribbon stock' would simply be a narrow strip or band of material as the raw material for something being made." SDS Br. at 23.

Ken counters that the term "ribbon stock" is not defined by the '919 patent claims, and that the '919 specification nowhere uses that phrase. It concludes that the phrase is not defined by the intrinsic evidence. It also insists that SDS' proffered "ordinary meaning" of the phrase is unsupported: Ken claims that "ribbon stock" has no plain meaning within the diecutting and diemaking industry, n2 referring to testimony of SDS' President Simon Song, a glossary published by the International Association [*59] of Diecutting and Diemaking (I.A.D.D.), and its own reading of the purported prior art patents. Ken further objects that,

according to the dictionary cited by SDS, "ribbon" is first defined as "[a] narrow strip or band of fine fabric, such as satin or velvet, finished at the edges and used for trimming or tying." Ken Br. at 13. n3 "Thus, SDS is apparently implying that the invention could also cover a unit that folds and cuts clothing, gift wrapping, etc. Such a result is absurd ... [and] well beyond what the '919 patent was intended to cover." Id. Next, Ken cites the I.A.D.D. definition of "stock": "Paper or other material to be die cut or printed." Warshavsky Decl. Exh. N. "Thus, when someone in the diecutting and diemaking industry uses the term 'stock,' [she is] referring to the product which will eventually be made by the diecutter." Ken Br. at 14. Finally, defendant distinguishes plaintiff's proffered prior art patents as either irrelevant to the precise term "ribbon stock," or describing a field other than diecutting or diemaking. Id. at 15. Defendant concludes that a person with skill in the art could not determine the bounds of the claims using the words "ribbon [**10] stock" and that the claims must be invalidated as indefinite.

n2 SDS seeks to define the relevant field more broadly as that of "metal forming art, in the context of diemaking." SDS Statement of Disputed Facts P 3.

n3 Though SDS did rely upon the American Heritage Dictionary definition of the term "ribbon," it quoted a different dictionary definition as "most appropriate": "Anything resembling a ribbon, as a measuring tape." SDS Markman Br. at 23.

In reply, SDS submits the declaration of Dr. Tricamo:

I am familiar with the level of knowledge of one of ordinary skill in the metal forming arts, including within the diemaking field, at least as early as June 1995 and to the present. (P 4).

The claims of the '919 patent use the words "metallic ribbon stock" and "ribbon stock" to describe the metal material being worked upon by the apparatus and method stated in the claims. In my opinion, Claim 1 uses the words "ribbon stock" as a shorthand expression for "metallic ribbon stock," which identifies [**11] a material intended to be acted upon by the components of the claimed apparatus. (P 6).

When I reviewed the claims of the '919 patent, I had no trouble understanding what was referred to by the terms

"metallic ribbon stock" and "ribbon stock" even without the benefit of the specification of the '919 patent, and I do not believe that one skilled in the art would have any trouble understanding them. ... "Ribbon stock" is a common term used and understood not only by engineers and other technical individuals in the metal forming arts, but is also, in my opinion, one used and understood by non-technical people. In essence, "ribbon stock" defines a flat strip of metal having edges that are generally parallel, as exemplified by a ribbon. "Ribbon stock" can be of any length. The use of "metallic" ribbon stock makes it clear that the material must be metallic, as contrasted with, for [*579] example, decorative fabric ribbon. (P 7) (Emphasis added).

I understand that terms commonly used in the diemaking industry include "rule," "steel rule," "metal rule," "cutting rule" and "knife." In my opinion, the term "metallic ribbon stock" is consistent with the above terms. (P 15).

Finally, [**12] SDS argues that as a matter of law, the use of the phrase "ribbon stock" in the claims, though not in the specification, does not defeat definiteness. SDS Br. at 25.

Ken's argument lacks merit. Beginning with the specification, see Miles Laboratories, Inc., 997 F.2d at 875, and Exxon, 46 Fed. Cl. at 283, the court notes that the abstract describes the invention as a "unified folding system for processing in one work line all working processes needed in cutting and folding a cutting blade in a shape suitable to sheet matter molding." The specification is replete with references to said "cutting blade," which is used to "press[] a folding or a cutting line on plate matters such as paper, canvas, leather, plastic, etc." See '919 Patent, col. 1, Ins. 21-23; Figure 2 (showing cutting blade 500 in preferred embodiment). It is clear from the specification that such "cutting blade," initially "wound in a roll shape," see col. 4, ln. 61, is fed through the claimed invention, which folds the blade "in [a] shape suitable to a molding of the sheet material," see col. 5, Ins. 25-27. In turn, a representative claim describes a "metallic ribbon [**13] stock folding apparatus" comprising a transferring unit, a rotary assembly, at least one retractable elongate member, "said rotary assembly configured for arcuate motion ... to fold a portion of said ribbon stock by said elongate member." See Claim 1 (emphasis added).

The court finds from this review that the disputed "ribbon stock" described in the claims refers to the material from which the preferred-embodiment "cutting blade" is constructed. n4 According to the specification, the preferred embodiment uses a supply of metal rule, which it calls a "cutting blade" once it enters the

machine, cuts and folds it to produce a die later used to cut predetermined shapes into sheet material such as cardboard. The specification, by its distinction between the terms "cutting blade," and "plate matters"/"sheet material," refutes the defendant's argument that the claimed "ribbon stock" refers to cardboard or other sheet material which will eventually be stamped out in the diecutting process. And the claims themselves, referring to "metallic ribbon stock," refute Ken's assertion that the invention concerns fabric, clothing, or gift wrap.

ⁿ⁴ Though not dispositive, defendant's repeated references to "steel rule" and "rule" provide some guidance to the court as well. See, e.g., Ken Br. at 13 n.3 ("The common term used in the industry for the material used to make cutting blades is 'steel rule' or 'rule.'"); Kengott Decl. P 28 ("From reading and reviewing the '919 patent, I understand the '919 patent to cover a device that processes steel rule such that the end product can be effectively used by a diecutter.").

[**14]

The court recognizes that the patentee [HN12] failed to "match" the terms of the claims to the phrases used in the patent specification. Yet, as noted by SDS, such is legally irrelevant: other courts have rejected the indefiniteness defense,

even though the precise words used in the patent's specification are not necessarily used in the [patent's] claims. Inasmuch as the statute does not require an inventor to use the exact same words in both the specification and the claims, the court must determine whether the language used by the inventors in the patent's claims clearly and adequately set forth what is claimed in the invention, whether the language is consistent with the language used in the patent's specification, and whether the language is reasonably clear in its meaning.

Pennwalt Corp. v. Durand-Wayland, Inc., 1984 U.S. Dist. LEXIS 18354, 225 U.S.P.Q. 558, 565 (N.D. Ga. 1984), *aff'd in part and vacated in part*, 833 F.2d 931 [*580] (Fed. Cir. 1987) (addressing only infringement). See also Aqua-Aerobic Systems Inc. v. Richards of Rockford Inc., 1986 U.S. Dist. LEXIS 16031, 1 U.S.P.Q.2D (BNA) 1945, 1954 (N.D. Ill. 1986) (rejecting [*15] definiteness challenge based on patentee's failure to use the word "member" in both patent claims and specification: "While the patent may not be perfectly drafted, it is clear from an overall reading of the patent that the 'member' referred to in

claim 8 is the casting."), *aff'd in part and vacated in part*, 835 F.2d 871 (Fed. Cir. 1987). Finally, though expert testimony proffered by litigants tends to differ as to the understanding of a person with ordinary skill in the art, and despite this court's ruling that Dr. Tricamo may not testify as to the niche field of diecutting and diemaking, the court finds Dr. Tricamo's declaration to be useful guidance as to the background technology and terminology in the metal forming arts. See Exxon, 46 Fed. Cl. at 282, 284.

This court's determination is enforced by contrast to Morton Intern., Inc. v. Cardinal Chemical Co., in which the Federal Circuit approved a district court's determination of indefiniteness because the claimed chemical compounds could not be proved to exist even with the use of "sophisticated analytical instrumentation and ... model systems." 5 F.3d 1464, 1469-70 (Fed. Cir. 1993). [**16] The level of imprecision here, even as alleged by defendant, does not rise to that level; plaintiff survives summary judgment of indefiniteness on the "ribbon stock" terminology.

B. Elongate Member

Ken also alleges indefiniteness based on the term "elongate member," found or incorporated in each of the '919 patent claims, as for example:

[Claim] 1. A metallic ribbon stock folding apparatus comprising: a transferring unit ...
a rotary assembly having first and second rotary bodies ... at least one retractable elongate member, said elongate member mounted for movement between a retracted position where said elongate member is disengaged from at least one of said rotary bodies and an extended position where said elongate member engages both said first and second rotary bodies; and said rotary assembly configured for arcuate motion ...

[Claim] 3. The metallic ribbon stock folding apparatus as recited in claim 1 comprising two elongate members.

[Claim] 5. The metallic ribbon stock folding apparatus as recited in claim 4 [which is dependent on claim 1] wherein the at least one retractable elongate member has a stock engaging [**17] edge formed by the intersection of at least two sides of the substantially trapezoidal cross-section.

(Emphasis added).

See generally Claims 1-12, '919 Patent, col. 6-8. Ken argues that the "elongate member" term is not defined in the patent; not used in the patent specification; and not found in the I.A.D.D. glossary. Ken Br. at 18-20. Ken

and its experts assert that the phrase is wholly unfamiliar to the diecutting and diemaking industry, that "those with skill in the art cannot determine the bounds of the claims that include 'elongate member,' and that "It is not possible to understand the term 'elongate member' as it is used in the '919 patent." Kengott Decl. P 26; Therrien Decl. PP 24-29.

SDS' response to Ken's contentions is foreshadowed by Ken's own brief: "The term 'bending pin,' however, is one that is used in the prior art." Ken Br. at 20 n.6. n5 Plaintiff's reply focuses on the patent's [*581] prosecution history, particularly a preliminary amendment filed July 29, 1998 which mentioned the elusive "elongate member." Gilman Decl. Exh. 4 at 44-48. The patent examiner responded by rejecting two claims as indefinite, not on any basis mentioned by defendant. [**18] See August 26, 1998 action by Examiner Daniel Crane, id. at 52-59 (rejecting claim 11 as indefinite for failure to define the phrase "opposite sides," and claim 17 for not describing the movement of the elongate member. Notably, Examiner Crane used the phrase "elongate member" without comment.) And in October 1998, Examiner Crane himself offered proposed redrafted claims, "to clarify what constitutes an extended and retracted position and to specify that the elongated member is the active work bending implement. It is believed that the claims as now amended overcome any indefiniteness and define [] the art of record." Id. at 76-81. In short, plaintiff argues that the patent examiner, presumably skilled in the art, had no difficulty understanding the disputed term.

n5 Ken's brief further cites the I.A.D.D. glossary, which defines "bending pins" as: "Male and female tools or pins used to bend die steel. Clicker and high die male bending pins are generally custom made by the bender to suit each height, thickness and shape of die steel to be bent. Steel rule male and female bending pins are readily available by number depending upon desired bends to be made and the height of stock." Warshavsky Decl. Exh. N.

[**19]

Once again, the specification provides crucial guidance. Anticipating conclusions, this court finds that the "elongate member" of the patent claims is identical to the folding member, labeled as part 330 in the diagrams of the invention's preferred embodiment. The folding member (or members), part of "folding unit," "folding device" or "folding means" 300, serves to fold the cutting blade at a pre-set angle.

The following excerpts from the specification provide a flavor of the use of "folding means 300":

[From Abstract]: "The cutting blade transferred to the folding device is folded in a predetermined shape by a folding member which performs a going-straight movement and a rotating movement. ..." See '919 Patent Abstract.

[From "Summary of the Invention": the claimed invention includes, *inter alia*]: a "folding means including at least two folding members" See col. 2, lns. 3-8.

[From "Detailed Description of the Preferred Embodiment": "The guide holes 323a and 323b are provided to insertably receive a folding member 330, to facilitate movement thereof" ... See col. 3, lns. 47-49.

[Again,] "the folding member [**20] 330 is inserted through guide hole 323a of rotary body 320a, [passes through other parts of the invention, including rotary body 320b] and is capable of being moved upwards and downwards. The folding member 330 inserted for mutual connection of rotary bodies 320a and 320b is provided for the folding work of the cutting blade 500, revolving together with the rotary bodies 320a and 320b. When the folding work is not being performed, the folding member 330 is completely apart from folding body 313 and is moved towards an upper side." See col. 3, ln. 58 - col. 4, ln. 1.

[And,] "Folding member 330 has a substantially triangular shape, which enables the cutting blade 500 to be folded easily even without applying an immoderate force. To fold the cutting blade easily, an application of any other shape excepting the triangulate shape doesn't matter." See col. 4, lns. 27-32.

[Finally, in the "operation embodiment of the folding system": "When the revolving bodies 320a and 320b are rotated, the folding member 330 is also rotated. That is, the folding member 330 is rotated and moved around ... for the folding operation as shown in FIG. 5. At this [**21] time, the moved folding member contacts with the cutting blade 500 ... thereby the cutting blade 500 is naturally folded by a rotating force of the folding member 330" ... See col. 5, lns. 52-61.

(Emphasis added.) Simple comparison of the specification and the above-quoted claims demonstrates that the "elongate member" of the claims has been described and described again in the patent specification -- only there it was called a "folding member". This court has no difficulty determining [*582] the bounds of an

invention involving such a term. Nor did patentee's Dr. Tricamo:

Upon reviewing the '919 patent claims, I had no trouble at all understanding what was intended by the words 'elongate member,' and it is my opinion that one of ordinary skill in the metal forming art would also have no trouble understanding what is meant by these words. Such words are common to describe mechanical terms. They mean a member or element which is longer than it is wide. In the context, it is this element that 'folds' or 'bends' the ribbon stock.

See Tricamo Decl. P 16. Ken defined the challenged part as a "bending pin," and SDS was likewise free to act as its own [**22] lexicographer. See Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 2000 WL 1035753 (Fed. Cir. 2000). Summary judgment on this issue is denied.

C. Transferring Unit

Finally, Ken challenges SDS' use of the phrase "transferring unit" in the patent claims, such as:

[Claim] 1. A metallic ribbon stock folding apparatus comprising [inter alia]: a transferring unit for transfer of ribbon stock through a passage formed by a guide, said passage defining a longitudinal axis ...

[Claim] 12. A system for folding metallic ribbon stock comprising [inter alia]: a transferring unit for controlled transfer of said ribbon stock through said passage in said guide. ...

In its motion for claim construction, SDS argues that the '919 patent is not subject to means-plus-function analysis under 35 U.S.C. § 112, P 6. SDS Markman Br. at 28. During that discussion, addressed more fully below (see Section 3.F.), plaintiff asserts that the specification equates "transferring unit" to a "transfer roller," referring to both as part 10 of the preferred embodiment. See id. at 29, referring to '919 Patent col. 4, lns. [**23] 61-64 ("The cutting blade 500 ... is transferred to the folding unit 300 ... by the transferring unit 10, having a transfer roller, through the cutting molding unit 100 and the guide nozzle 201); col. 2, lns. 42-44 ("the folding system of the cutting blade comprises a transferring unit 10 for transferring the cutting blade of a roll shape ..."); col. 5, lns. 25-31 ("The cutting blade 500 passed through the guiding entrance 300 is then folded in the shape suitable to a molding of the sheet material. In folding the cutting blade 500, the transfer roller 10 stops and the transferring work of the cutting blade 500 is temporarily in a stopped state. At the same time as the stop of the transfer roller 10, the second

driving unit ... operates ..."); col. 6, lns. 6-7 and 11 (emphasis added).

Ken counters that such references are inadequate: "Reviewing all of the citations by SDS, we come to the conclusion that the transferring unit has a transfer roller, that the transfer roller can stop (suddenly or otherwise), and that the transfer roller can start again after it stops. ... Therefore, even accepting each portion of SDS's argument as accurate, there is no explanation [**24] of what the transferring unit is. Rather, the specification identifies one element of the transferring unit, and informs us that the element can stop and go." Ken Br. at 21. Defendant concludes by rejecting any explanation by extrinsic evidence: here again Ken notes the absence of the phrase "transferring unit" in the I.A.D.D. glossary. Id. at 22.

Ken's challenge is rejected. SDS' review of the specification (together with Ken's concession at oral argument) demonstrates that the terms "transferring unit" and "transfer roller" are interchangeable. The patentee uses both terms to describe the mechanism that moves the ribbon stock, from a roll at the beginning of the assembly line, through a longitudinal passage formed by a "guide." n6 Such interpretation [*583] is fully consistent with the use of the phrase "transferring unit" in the patent claims.

n6 In the preferred embodiment, SDS describes the "guide" as part 200, itself composed of the elements "guide nozzle 201" and "guiding passage 203." See col. 3, lns. 7-12, and Figures 2 and 4.

[**25]

The court is further persuaded by the extrinsic evidence of record. See Exxon, 46 Fed. Cl. at 280-84. SDS notes a comment by Patent Examiner Crane when he rejected claims of the parent '379 application over a prior art patent:

[Certain claims] are rejected ... as being anticipated by Tuit (3,420,279). While Tuit does not show a transfer unit, this provision is inherently included since such mechanism which guides the ribbon into the bending machine would be required so as to position the ribbon for bending within the retractable elongate members ...

Gilman Decl. Exh. 4 at 55 (emphasis added). SDS accurately surmises from that comment that the "transfer unit" was readily recognizable to Examiner Crane, and presumably to other skilled professionals, based on mechanisms found in the prior art. n7 And again, though

not dispositive, the court takes into account the general engineering experience of Dr. Tricamo, who opines:

The claims clearly convey that the transferring unit is a mechanism for moving ribbon stock through a passage in a guide so that processing of the material can take place. This can be accomplished by any number of [**26] devices known in the 1995 time frame, including cam drive, linkage drive, feed rollers or gear drives. . .

Tricamo Decl. P 17.

ⁿ⁷ At oral argument, SDS suggested that the Tyler patent, No. 5,461,893, disclosed examples of the transferring unit. See Tyler patent, description of "Rule Feeder" at col. 6, ln. 45 *et seq.* That contention was disputed; the court does not consider it dispositive.

The patentee has satisfied the definiteness standard; Ken's motion for summary judgment is denied.

3. Written Description

In the alternative, Ken requests a judgment of invalidity based on SDS' failure to satisfy the written description requirement, 35 U.S.C. § 112, P 1:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same [**27] ...

The Federal Circuit describes the purpose of this rule: "Satisfaction of the description requirement insures that subject matter presented in the form of a claim subsequent to the filing date of an application was sufficiently disclosed at the time of filing so that the *prima facie* date of invention can fairly be held to be the filing date of the application." *In re Smith and Hubin*, 481 F.2d 910, 914 (C.C.P.A. 1973), quoted in *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991). See also *Rengo Co. Ltd. v. Molins Machine Co.*, 657 F.2d 535, 551 (3rd Cir. 1981) ("The purpose of the description requirement is 'to buttress the original filing date of the application as the *prima facie* date of invention.'").

As relevant to this case, "[HN13] If an inventor applies for a patent in a foreign country, and files an application in the United States within one year, the American application 'shall have the same effect as the

same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country,'" provided that the written description requirement [**28] is satisfied. *Rengo*, 657 F.2d at 547-48 (quoting 35 U.S.C. § 119(a)).

Our own Circuit explains:
[*584]

There is a subtle relationship between the policies underlying the description and definiteness requirements, as the two standards, while complementary, approach a similar problem from different directions. Adequate description of the invention guards against the inventor's overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation. The definiteness requirement shapes the future conduct of persons other than the inventor, by insisting that they receive notice of the scope of the patented device.

Rengo, id. at 551, quoted in *Vas-Cath*, 935 F.2d at 1561.

[HN14] The test for compliance with the written description requirement is well settled: "Although [the applicant] does not have to describe exactly the subject matter claimed, ... the description must clearly allow persons of ordinary skill in the art to realize that [the applicant] invented what is claimed." *Vas-Cath*, 935 F.2d at 1563 [**29] (quoting *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989)). "A disclosure in a parent application that merely renders the later-claimed invention obvious is not sufficient to meet the written description requirement; the disclosure must describe the claimed invention with all its limitations." *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998). Such compliance is a question of fact. *Vas-Cath*, 935 F.2d at 1563; *Union Oil Co. of California v. Atlantic Richfield Co.*, 208 F.3d 989, 996 (Fed. Cir. 2000).

Ken summarizes its position: "The claims of the '919 patent were filed several years after the written description was drafted -- apparently to cover Ken's products. As such, at the time the specification was filed, SDS did not actually know of the invention it is now claiming (it was only after SDS became aware of Ken's products that it filed its new claims)." Ken Br. at 23.

Once again, defendant's argument is linguistic. It springs from the premise that the terms "ribbon stock" and "elongate member" "were never used in the original application, and as such, were never defined by the patent." Ken Br. at [**30] 2. Ken frames the issue: "When the written description does not use precisely the same terms used in a claim, the question is then whether

the specification directs or guides one skilled in the art to the subject matter claimed." Id. at 24.

A. Ribbon Stock

The court again reviews the specification to determine whether the claimed "ribbon stock" has been adequately disclosed. Tracking the earlier analysis of definiteness, see Section 2.A. above, it is clear that the specification's repeated references to a "cutting blade" describe the "ribbon stock" named in the patent claims. Even Ken takes the position that the patent "clearly explains" the following flow chart:

1. the steel rule which is used for making the cutting blade is transferred (for example, from a spool of wound steel) to the cutting molding unit
2. at the cutting molding unit, a piece of the steel rule is cut;
3. the cut steel rule is then transferred to a bending pin; and
4. the cut steel rule is bent by the bending pin.

Ken Br. at 26. That explanation supports this court's finding that a person of ordinary skill in the art would readily recognize that SDS' invention involved steel rule/ribbon [**31] stock.

This case is distinguishable from *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998), where a patentee had described only a single, conical shape of "cup" (part of an artificial hip implant) in its parent application, yet sought to claim generically-shaped cups in a patent that issued from a later continuation-in-part application. Unlike *Tronzo*, SDS described the challenged [*585] part in its original disclosure -- albeit by a different name. See *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1570 (Fed. Cir. 1996) ("[HN15] *Ipsis verbis* disclosure is not necessary to satisfy the written description requirement of section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question."); *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) ("Although the exact terms need not be used in *haec verba* ... the specification must contain an equivalent description of the claimed subject matter."). Summary judgment is denied.

B. Elongate Member

Ken's objection to the adequacy of written description of the claimed "elongate member" [**32] is similarly resolved. To iterate, the court must determine whether the '919 specification "provides adequate direction which reasonably would lead persons skilled in

the art" to the disputed part. *Fujikawa*, 93 F.3d at 1570 (citation omitted).

As noted above, the defendant itself has identified the elongate member as a "bending pin." The specification describes the element as "folding member 330," and SDS' witness Dr. Tricamo avows that one of ordinary skill in the metal forming art would have no difficulty understanding such a common term. See Tricamo Decl. P 16. This evidence satisfies the written description requirement. Ken's semantic arguments are unpersuasive. Summary judgment is denied on the written description issue.

3. Claim Construction

A. Markman Standard

As said, SDS and Ken each requests that the court construe the '919 claims in its favor. [HN16] The construction of patent claims is a matter of law exclusively for the court. *Markman v. Westview Instruments*, 52 F.3d 967 (Fed. Cir. 1995).

[HN17] This court recently discussed the standards for claim construction:

The court must look first to the "intrinsic evidence," which [**33] consists of the patent claims, the specification, and the prosecution history if in evidence. "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms. *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999). Of course, "claim construction is not philosophy ... [it] is firmly anchored in reality by the understanding of those of ordinary skill in the art." *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1365 (Fed. Cir. 1999). And though the prosecution history can and should be used to understand the language used in the claims, it may not be used to "enlarge, diminish, or vary" the limitations in the claims. *Markman*, 52 F.3d at 979 (citation omitted).

"[HN18] In most situations, an analysis of intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, [**34] it is improper to rely on extrinsic evidence" such as expert testimony, treatises and dictionaries, and articles. *Vitronics*, 90 F.3d at 1583. Accordingly, where the patent documents are unambiguous, expert testimony is entitled to no weight. *Id.* [HN19] Prior art may serve as a guide to the meaning of a disputed term, and particularly as a time-saving

demonstration of how a disputed term is used by those skilled in the art. Id. at 1584. Finally, "[HN20] opinion testimony on claim construction should be treated with the utmost caution," because such testimony "amounts to no more than legal opinion -- it is precisely the process of construction that [*586] the court must undertake." Id. at 1585 (citation omitted).

Bristol-Myers Squibb Co. v. Immunex Corp., 86 F. Supp. 2d 447, 448-49 (D.N.J. 2000).

B. "At least one" retractable elongate member

i. Plain Language

Initially, SDS asserts that the "at least one retractable elongate member" described in independent claims 1, 8 and 12, and some of the dependent claims, refers to an invention with one or more such elongate members. "[HN21] Use of the phrase 'at least one' means [**35] that there could be only one or more than one." Rhine v. Casio, Inc., 183 F.3d 1342, 1345 (Fed. Cir. 1999) (also quoting Kistler Instrumente AG v. United States, 224 Ct. Cl. 370, 628 F.2d 1303, 1318 (Ct. Cl. 1980) ("Anyone with even the most rudimentary understanding of the English language understands that 'at least one piezo-electric crystal means lodged within said component means,' to mean one or more crystals. Certainly, if the patentees intended that claim 1 was to cover one and only one piezoelectric crystal, they would have changed the above-quoted language to read 'one piezoelectric crystal means lodged within said component means.'"). In the definiteness analysis above, this court concluded that the "retractable elongate member" of the claims is the same part as the "folding member 330" named in the patent specification.

The patentee acknowledges that portions of the specification appear to describe an invention with two elongate members. Figure 3 shows two sets of guide holes 323a and 323b set in the rotary bodies 320a and 320b to accommodate elongate members, and Figure 2 portrays two folding members 330. Yet SDS notes that the specification [**36] describes only a preferred embodiment of the invention -- and "particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments. ... [a] limitation should not be read from the specification into the claims" Rhine, 183 F.3d at 1346; see also Specialty Composites v. Cabot Corp., 845 F.2d 981, 987 (Fed. Cir. 1988). Patentee explains that "if a need exists," two elongate members can be employed, but such is not required by the claims. See col. 6, ln. 8.

Further, SDS quotes from the specification at col. 3, lns. 47-58: "The guide holes ... are provided to insertably

receive a folding member 330, to facilitate movement thereof ... Although an example of the guide holes ... is shown in the figures wherein each guide hole has a folding member set therein, it is preferable that only one folding member is set at a given time during operation." (Emphasis added.) And, at col. 4, lns. 4-5: "Although two folding members 330 are shown in the drawings, for exemplary purposes, only one can be set." (Emphasis added.) Finally, Figure 5 shows only one folding member and [**37] maps its arc as it bends the cutting blade. SDS claims that, were a second folding member used while a first folding member was in operation, "one would interfere with the other." SDS Br. at 11.

Ken responds that the elongate member should be understood as a means-plus-function element under 35 U.S.C. § 112 P 6, a contention which the court will address below. Defendant continues: "The structure that performs [named] functions in the specification are the *two* folding members identified as item 330. The specification, along with Figs. 2, 4 and 6 indicate that retractable elongate member refers to *each* folding member. ... The only structure taught by the specification is a unit that includes *two* folding units." Ken Br. at 27.

At this point, the court is persuaded by two maxims of patent construction to accept SDS' interpretation. First, the patentee follows clear authority that "[HN22] the language of the claim frames and ultimately resolves all issues of claim interpretation." [*587] Abtox, Inc. v. Exitron Corp., 122 F.3d 1019, 1023 (Fed. Cir. 1997), and that [HN23] claim language may not be narrowed to preferred embodiments disclosed [**38] in the specification. See Rhine, 183 F.3d at 1346; see also Transmatic, Inc. v. Gulton Industries, Inc., 53 F.3d 1270, 1277 (Fed. Cir. 1995). Second, "[HN24] in construing a claim, claim terms are given their ordinary and accustomed meaning unless examination of the specification, prosecution history, and other claims indicates that the inventor intended otherwise." Transmatic, 53 F.3d at 1277. Following those guidelines, the court will call the disputed "rose" a "rose" unless persuaded otherwise by the prosecution history or the other claims (via the doctrine of claim differentiation).

ii. Claim Differentiation

As another clue, SDS looks to the dependent patent claims. Claim 1 describes a "metallic ribbon stock folding apparatus" comprising, *inter alia*,

at least one retractable elongate member, said elongate member mounted for movement between a retracted position where said elongate member is disengaged from at least one of said rotary bodies and an extended position where said elongate member engages both said first and second rotary bodies. ...

(Emphasis added.) In turn, dependent claim 3 reads in [**39] full: "The metallic ribbon stock folding apparatus as recited in claim 1 comprising two elongate members."

[HN25] Dependent claims, which add limitations, are presumed narrower than the independent claims from which they spring. See, e.g., *Wilson Sporting Goods Co. v. David Geoffrey & Assoc.*, 904 F.2d 677, 686 (Fed. Cir. 1990); *Specialty Composites*, 845 F.2d at 987-88 (holding that [HN26] a limitation recited in dependent claims does not imply such limitation in independent claims: to the contrary, such is evidence that the broader independent claims do not contain the limitation). And, "[HN27] where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad." *D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985) (citation omitted). n8 [HN28] Finally, the doctrine of claim differentiation teaches that "there is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in the meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference [**40] between claims is significant." *United States v. Electronics*, 857 F.2d 778, 783-84 (Fed. Cir. 1988) (citation omitted).

n8 The D.M.I. Court described such rule as "far more than 'general.' It is fixed. It is long and well established. It enjoys an immutable and universally applicable status comparatively rare among rules of law. Without it, the entire statutory and regulatory structure governing the drafting, submission, examination, allowance, and enforceability of claims would crumble." 755 F.2d at 1575.

The court accepts SDS' claim differentiation argument. Dependent claim 3 tracks independent claim 1 in all respects, except that claim 3 describes exactly two elongate members. Because claim 1 is presumed both different from and broader than dependent claim 3, the court concludes that claim 1 must recite some number of elongate members other than, or in addition to, exactly two. This interpretation supports a reading of the "at least one" language to include an invention with [**41] only one elongate member.

iii. Prosecution History

Finally, the parties focus on the prosecution history of the '919 patent in suit, as well as of the parent '391 application which issued as the '750 patent. n9

n9 Though SDS initially asserted infringement of the '750 patent, it later dismissed that infringement claim with prejudice. Only the '919 patent remains at issue in this suit.

Ken's argument stems from two events that occurred during SDS' prosecution of the parent '391 application. Claims submitted to the PTO in June 1996 included [*588] claim 2, describing a single "folding member," and dependent claim 3, "wherein said folding member is at least set with plural numbers." Gilman Decl. Exh. 2 at 35-36. On July 9, 1997, the patent examiner rejected all pending claims (claims 1-11) for various reasons, including:

Claims 1 and 9 are rejected under 35 U.S.C. 102(a), (b), (e) as being anticipated by Tyler (5,461,893). See Figure 5 where the first and second driving means [**42] is shown for revolving the folding means and moving the folding means in a straight line direction, i.e., in an "isolated position".

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paine (3,584,660) in view of Tyler (5,461,893). Paine illustrates the basic claimed invention wherein a folding means 32 can be revolved and moved in a straight line so as to effect bending of the workpiece and permit movement of the folding means to be retracted and extended by moving the folding means along its axis. The two movements, i.e., in a revolving direction and in a straight line direction, are effected by first and second driving means [shown in accompanying diagrams]. Paine indicates that a cutting means is provided to cut the workpiece to a desired length but does not indicate where the cutting means may be positioned. Tyler shows that a cutting means may be positioned between the transferring unit and a guide nozzle. Accordingly, it would have been obvious to the skilled artisan to have modified Paine's cutting means by situating the cutting means upstream of the nozzle which feeds the workpiece into the bending unit as taught by Tyler so [**43] as to sever the workpiece to a desired length prior to being fed into the bending unit.

Warshavsky Decl. Exh. S at 82-83. In response, on October 16, 1997, the inventor amended claim 1 to recite, *inter alia*, a folding means, "the folding means including at least two folding members." Warshavsky Decl. Exh. T at 90 (emphasis added). That amendment also referenced "a pair of rotary bodies; rotatably connected to the ends of the fixing body for revolving the folding members, said pair of rotary bodies having a

pair of guide holes formed therein for revolving the folding members." Id. (Emphasis added). And in that submission, the inventor represented:

Applicant respectfully submits that the present invention as claimed is patentably distinguishable from Tyler '893 and is therefore allowable thereover. For example, with regard to independent claim 1, nowhere does Tyler '893 teach or suggest applicant's, *inter alia*, 'folding means including at least two folding members ...'. In contrast thereto, with the Tyler '893 device, as discussed above, the bending bars and the single bending tool must be withdrawn and disengaged completely from the metal rule so [**44] that the bending tool may be rotated to a second position. Advantageously in the present invention, two folding members are provided which may be alternatively positioned adjacent the cutting blade by the second driving means. Therefore, the cutting blade of the present invention remains within its guide member throughout the bending process.

Warshavsky Decl. Exh. T at 8-9 (emphasis added). In response to the inventor's October 1997 amendments, the examiner allowed the '750 patent to issue. See Notice of Allowability, Gilman Decl. Exh. 2 at 117. It is undisputed that the '750 patent includes the limitation "the folding means including at least two folding members." See '750 Patent, Gilman Decl. Exh. 2 at 14, claim 1; see also dependent claim 2 ("... wherein the at least two folding members having [sic] a substantially triangular cross-section.").

From these events, Ken argues: "As used in the '919 patent specification, and the prosecution history of its parents, 'at least one retractable member' must be interpreted as two or more folding members. Otherwise, Tyler '893 anticipates [*589] the invention by disclosing one bending pin." Ken Br. at 30. The defendant [**45] charges that SDS is, by this motion, now attempting to reclaim subject matter that it expressly disclaimed in the prosecution history: an invention involving only one bending pin. Id. Ken thus relies on a variant of prosecution history estoppel: n10

"[HN29] Arguments made during the prosecution history are relevant in determining the meaning of the terms at issue." ... The prosecution history of a patent contains: all express representations made by or on behalf of the applicant to the examiner to induce a patent grant. ... Such representations include amendments to the claims and arguments made to convince the examiner that the claimed invention meets the statutory requirements of novelty, utility, and nonobviousness. Thus, the prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any

interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.

Jonsson v. Stanley Works, 903 F.2d 812, 818 (Fed. Cir. 1990) (citations omitted).

n10 [HN30] The doctrine of "prosecution history estoppel," sometimes called "file-wrapper estoppel," "precludes a patentee from obtaining in an infringement suit protection for subject matter which it relinquished during prosecution in order to obtain allowance of the claims." Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1574 (Fed. Cir. 1997). It is typically invoked to bar or limit a patentee's assertions of infringement under the doctrine of equivalents. Id.; see also K-2 Corp. v. Solomon S.A., 191 F.3d 1356, 1367 (Fed. Cir. 1999). [HN31] The doctrine is not squarely applicable to the claim construction context, but has a close variant: "Interpreting claims in view of the prosecution history applies as a preliminary step in determining literal infringement. Prosecution history estoppel applies as a limitation to the doctrine of equivalents after the claims have been properly interpreted and no literal infringement is found." General Elect. Co. v. Nintendo Co., 179 F.3d 1350, 1362 (Fed. Cir. 1999) (citation omitted).

[**46]

SDS disputes Ken's estoppel argument (which, as said, is based solely upon comments made during prosecution of the parent application) by reference to the prosecution history of the '391 application, which issued as the '919 patent in suit. The patentee cites claims submitted in its July 1998 preliminary amendment: One claim required two retractable elongate members, see dependent claim 12 ("The metallic ribbon stock folding apparatus as recited in claim 10 comprising two elongate members."), but several others were limited to "at least one," see, e.g., claim 10 (including "at least one retractable elongate member mounted for movement between a retracted position and an extended position"). See '391 Application, Gilman Decl. Exh. 4 at 44-48. In August 1998, the patent examiner issued his only official action which, in addition to formal matters, rejected certain claims as unpatentable over prior art references Tuit (3,420,279) and Ritter (3,823,749). Id. at 53-59. The examiner did not cite to the Tyler patent as an invalidating prior art reference. Id.

SDS concludes that what made the '750 claims patentable was not, as Ken says, the presence of two

elongate [**47] members. Instead, "it was the structure whereby the elongate member engages both the first and second rotary bodies [parts 320a and 320b of the preferred embodiment]." SDS Br. at 17. The crux of SDS' argument is that while the claims of the '750 patent, issued from the parent application, admittedly limited the invention to include two retractable elongate members, the claims of the '919 patent are not likewise narrowed.

The record supports the patentee's argument. The '919 patent claims that issued were closely modeled on claims suggested by the examiner in October 1998. See Gilman Decl. Exh. 4 at 77-82. The examiner's comments focused heavily on the physical relationship between a single elongate member and the two rotary bodies, but not on the number of elongate members. For example, he suggested the phrasing "a rotary assembly having first [*590] and second rotary bodies spaced to receive ribbon stock therebetween, said elongate member engaging both first and second rotary bodies when in the extended position;" and "at least one retractable elongate member, said elongate member mounted for movement between a retracted position where said elongate member is disengaged from [**48] said rotary bodies and an extended position where said elongate member engages both first and second bodies." Id. at 77-79, claim 10 (examiner's additions underlined). The prosecution history also contains an "interview summary" by the patent examiner, recording a telephone conversation discussing with the inventor the positioning of the elongate member. Id. at 70. Finally, the court finds compelling SDS' remark that the examiner failed to even mention the Tyler reference as prior art in his August 1998 rejection of the '919 claims. See '391 Application, Gilman Decl. Exh. 4 at 53-59. Such omission would be startling if, as Ken suggests, the Tyler prior art reference invalidated every diemaking machine equipped with only one elongate member/bending pin.

Ken's argument that SDS deliberately relinquished rights to an invention with only one elongate member fails. n11 Estoppel or limitation of the '919 claims to that effect would be inappropriate. The prosecution history leading to the '919 patent supports the court's initial finding that "at least one retractable elongate member" means one or more. See '919 Patent, independent claims 1, 8 and 12, and some dependent [**49] claims.

n11 During the Markman hearing, Ken advanced for the first time the argument that the claimed invention would be inoperative if it used only one elongate member: it analogized such machine to a car that could turn in only one direction. The court finds that argument unconvincing in light of the specification, which

directs that "it is preferable that only one folding member is set at a given time during operation." See col. 3, lns. 53-54. Moreover, determinations of operability involve a separate inquiry from the Markman analysis.

C. Elongate Member: "Means-Plus-Function"

As said, Ken makes one remaining argument concerning the elongate member: the defendant asserts that it must be understood as a means-plus-function element under 35 U.S.C. § 112, P 6, which states:

[HN32]

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such [**50] claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Broadly stated, "[HN33] a claim deserves means-plus-function treatment when 'expressed as a means ... for performing a specified function without the recital of structure [or] material ... in support thereof.'" Seal-Flex, Inc. v. Athletic Track and Court Constr., 172 F.3d 836, 848 (Fed. Cir. 1999) (Rader, J., concurring) (citations omitted); see also O.I. Corp. v. Tekmar Co. Inc., 115 F.3d 1576, 1583 (Fed. Cir. 1997) (paragraph 6 is implicated "only when means plus function without definite structure are present"). If defendant is correct, the statute acts to limit the elongate member claims to the structure disclosed in the patent specification or their structural equivalents. The Federal Circuit describes the *quid pro quo* encompassed in this means-plus-function provision:

[HN34]

[Paragraph 6] language permits a patent applicant to express an element in a combination claim as a means for performing a function. The applicant need not recite structure, material, or acts in the claim's means-plus-function [**51] limitation. ... The second clause of the [] paragraph, however, places a limiting condition on an applicant's use of means-plus-function language. A claim limitation described as a means for performing a function, if read literally, could [*591] encompass any conceivable means for performing the function. This second clause confines the breadth of the protection otherwise permitted by the first clause. The applicant must describe in the patent specification some structure which performs the specified function. ... [Paragraph 6] limits the applicant to the structure, material, or acts in the specification and their equivalents.

Valmont Indus. v. Reinke Mfg. Co., 983 F.2d 1039, 1042 (Fed. Cir. 1993) (citations omitted). SDS strenuously objects that the '919 patent contains no means-plus-function language; the court therefore addresses the issue.

Patent drafters conventionally invoke 35 U.S.C. section 112, Paragraph 6 "by using only the words 'means for' followed by a recitation of the function performed." Cole v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed. Cir. 1996). Thus, [HN35] use of the word "means" in claims triggers a presumption that the inventor [**52] sought to invoke means-plus-function analysis. O.I. Corp., 115 F.3d at 1579. And, "when an element of a claim does not use the term 'means,' treatment as a means-plus-function claim element is generally not appropriate." Al-Site Corp. v. VSI Intern., Inc., 174 F.3d 1308, 1318 (Fed. Cir. 1999).

[HN36] However, that analysis is deceptively simple: the dispositive issue is whether the claims recite structure. "Mere incantation of the word 'means' in a clause reciting predominantly structure cannot evoke section 112, P 6. Conversely, 'the recitation of some structure in a means plus function element does not preclude the applicability of section 112(6)." O.I. Corp., 115 F.3d at 1579 (citation omitted). Therefore, even if "means" language is present, "the presumption that § 112, P 6 applies is overcome if the claim itself recites sufficient structure or material for performing the claimed function." Al-Site Corp., 174 F.3d at 1318.

Ken argues that the '919 patent claims do not define the structure of the elongate member. Ken Br. at 25. "Indeed, there is no structure at all in this claim element." Id. Further, the defendant [**53] asserts that the elongate member is not defined either in the patent specification or in the prosecution history. Id. at 26.

SDS responds that the element is described as "elongate" and "retractable." And, plaintiff asserts, Ken's argument fails: "under Ken's analysis, the 'at least one retractable elongate member' is a means-plus-function element *without a function!*" SDS Reply Br. at 4. See generally Rodime PLC v. Seagate Technology, Inc., 174 F.3d 1294, 1302 (3rd Cir. 1999) ([HN37] Paragraph 6 not invoked if claim either recites sufficient structure for performing stated function, or if it recites no function corresponding to stated means).

Initially, the court notes that the elongate member phrase nowhere includes the operative "means for" language -- all claims of the '919 patent are devoid of that phrase. Therefore, the court presumes that Paragraph 6 does not apply. And [HN38] dictionary definitions, not to mention common sense, point to the word "member" (descriptive modifier notwithstanding) as a structural term. See Webster's New International Dictionary (2d ed.

1956) defining "member" as, *inter alia*, "... 5. A part of a whole; an independent constituent [**54] of a body, structure, or any organized thing, or a unit in a series ... 12. *Engin.* Any essential part of a framed structure." Analogously, the Federal Circuit, reviewing the phrase "detent mechanism," stated:

It is true that the term "detent" does not call to mind a single well-defined structure, but the same could be said of other commonplace structural terms such as "clamp" or "container." What is important is not simply that a "detent" or "detent mechanism" is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art.

[*592]

Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed. Cir. 1996).

Following that reasoning, this court invokes its earlier analyses of the "elongate member," its equivalence to "folding unit," "folding device," or "folding means" 300 of the patent specification, and to Ken's proffered "bending pin." See also Envirco Corp. v. Clestra Cleanroom, Inc., 209 F.3d 1360, 1365 (Fed. Cir. 2000) (interpreting "second baffle means" element: "The term 'baffle' itself is a structural term. The dictionary definition of the word 'baffle' [**55] is 'a device (as a plate, wall or screen) to deflect, check, or regulate flow.' Because the term 'baffle' itself imparts structure, meaning a surface which deflects air, its use in the claims rebuts the presumption that § 112, P 6 applies.") (emphasis added and citation omitted). The court finds no support for Ken's proposition that the claimed elongate member connotes function without structure. Means-plus-function treatment of this element is inappropriate and denied.

D. Ribbon Stock

i. Claim Limitation or Statement of Intended Use?

The parties dispute the effect of the words "ribbon stock" in the claims. Their arguments concerning this element often reiterate those made in the definiteness/written description context; the court simply affirms its finding that the ribbon stock described in the claims refers to the material from which the cutting blade is constructed. See Section 2.A., above. The ribbon stock is identical to what Ken itself has identified as "steel rule." See Ken Invalidity Br. at 13 n.3.

SDS contends that the preamble phrase "[A/The] metallic ribbon stock folding apparatus" introducing claims 1-6 describes only the intended use of the [**56] apparatus, and is thus not a claim limitation. SDS Br. at 20. Ken disagrees, contending that in this case, the preamble "defines the entire operation of the device."

Ken Br. at 8. The defendant suggests that SDS' proposed interpretation would have dire effects: "Simply put, the non-meaningful term 'widget' could replace 'ribbon stock,' throughout the claim, and *all* of the limitations would maintain the same meaning." Ken Br. at 9.

The Federal Circuit teaches:
[HN39]

"[A] claim preamble has the import that the claim as a whole suggests for it." Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.

Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997) (citations omitted). [HN40] To decide whether a preamble recites structural limitations or merely describes the intended use of the invention, courts look to the phrasing of the claim, the specification and drawings. [**57] Id. at 478-79. "The inquiry involves examination of the entire patent record to determine what invention the patentee intended to define and protect." Id. at 478.

Vaupel Textilmaschinen KG v. Meccanica Euro Italia SPA, 944 F.2d 870, 879-80 (Fed. Cir. 1991), provides useful guidance. There the Federal Circuit approved the district court's conclusion that language referring to parts of a broadloom in claim preambles did not limit the claims: "'Breast beam' and 'breast plate' are not structural limitations ... ; as used in [the disputed claims], they indicate a reference point to fix the direction of movement of the woven fabric from the loom."

In the '919 patent, the ribbon stock functions as such a "reference point," or as SDS calls it, a "workpiece" of the apparatus defined by claims 1-6. The patentee offers this analogy, which the court finds persuasive: "If one were to invent a new paper hole puncher, the claims would necessarily [**593] describe a location for positioning the paper, a punching die adapted to pierce the paper, and the like. But that would not make paper an element of the claim, such that one could freely knock off [**58] the hole puncher and sell it without liability for infringement as long as no actual piece of paper is packaged with the hole puncher." SDS Reply Br. at 12; see also Robert C. Faber, *Landis on Mechanics of Patent Claim Drafting* (4th ed. 1999), Gilman Suppl. Markman Decl. Exh. 41, § 15, at III-2 ("[HN41] The article to be worked on, the workpiece, need not be defined in detail, unless such a description is important to the functioning of the apparatus or made necessary by the prior art."), and § 16, at III-5 ("The workpiece ... should be

identified in the preamble of the claim, but not made an element of the claimed combination. The workpiece appears in the body of the claim, as it interacts with a claim element.") (Emphasis added).

The patent specification demonstrates that the disputed ribbon stock is the element worked on by the patented machine: ribbon stock is necessary to describe the invention, but is not a necessary element of claims 1-6. The specification repeatedly discusses the workings of various machine parts upon the cutting blade. The very title, "Folding System for a Cutting Blade," is one example, as are phrases such as "transferring unit for transferring [**59] the cutting blade," "cutting means ... for cutting the cutting blade," "guide member ... for guiding the cutting blade" and "folding means ... for folding the cutting blade." See '919 Patent, col. 1, ln. 58 - col. 2, ln. 8.

This conclusion is enforced by the doctrine of claim differentiation. As said, claim 1 recites a "metallic ribbon stock folding apparatus comprising" numerous parts, not including ribbon stock. In contrast, claim 7 is directed to "the metallic ribbon stock folding apparatus as recited in claim 1 further comprising a supply of metallic ribbon stock." (Emphasis added). And claim 12 recites a "system for folding metallic ribbon stock comprising," *inter alia*, "a supply of ribbon stock." The presence of ribbon stock is a limitation on dependent claim 7 and claim 12; by the established rules of claim construction, it does not so narrow independent claim 1. See *Specialty Composites*, 845 F.2d at 987-88; *Electronics*, 857 F.2d at 783-84.

The court finds that "ribbon stock" is a claim limitation of only claims 7 and 12 of the '919 patent. Ken's arguments notwithstanding, the reference to ribbon stock in the claim preambles [**60] is a mere statement of "purpose or intended use." *Rowe*, 112 F.3d at 478.

ii. Precut Segments

Ken next contends that the term "ribbon stock" must be construed as precut segments of a cutting blade. Ken Br. at 10. SDS responds that the ribbon stock "need not be -- but can be -- a series of precut segments." SDS Br. at 27.

Primarily, the defendant relies on diagrams and passages in the specification which direct that the cutting blade be first transferred, then cut, then folded, each in due succession. See, e.g., col. 2, lns. 41-54 (explaining Figure 1); col. 3, lns. 2-6. The court rejects that argument, again because such passages describe only a preferred embodiment of the invention. To repeat, "[HN42] Particular embodiments appearing in a specification will not be read into the claims when the

claim language is broader than such embodiments." Rhine, 183 F.3d at 1346.

Once again, the doctrine of claim differentiation dictates the result. Most claims make no mention of the cutting process. See, e.g., claims 1-8. In contrast, dependent claim 9 teaches "the method of folding metallic ribbon stock as recited in claim 8, further comprising [**61] the step of: cutting ribbon stock at a predetermined length." See also claim 12, which recites a "cutter" and the components that fold (rotary assemblies and at least one elongate member), but dictates no order of operations. These distinctions support SDS' [*594] contention that cutting, when claimed, can take place either upstream or downstream from folding.

So too this passage from the specification:

Two discrete functions are required, namely after a cutting work in separated [sic] places, then moving it into a folding device individually, and then the folding work is performed, *or* after the folding work, then moving it into a cutting device one by one, and then the cutting work is performed. ...

See col. 1, lns. 41-48 (emphasis added). A stated purpose of the invention is to improve work efficiency and productivity, "by continuously performing all work elements needed in the cutting and folding works of the cutting blade provided in a sheet matter molding, in one work line ..." Col. 1, lns. 51-57. The primary benefit of the invention appears to be efficiency, not the order of operations.

The defendant has produced no cognizable evidence that [*62] the order of the cutting and folding operations is specified in the '919 patent. The court therefore rejects Ken's argument that ribbon stock should be construed to mean precut segments of cutting blade.

E. Means-Plus-Function Revisited: "Cutter"

Ken identifies the "cutter" of claim 12 as a means-plus-function claim. That claim is directed to a "system for folding metallic ribbon stock comprising," *inter alia*, "a cutter for cutting said ribbon stock at a predetermined location." Here Ken seeks to limit the claimed cutter to that disclosed in the '919 patent and its structural equivalents. 35 U.S.C. § 112, P 6. Again Ken points to the specification: "The above [referring to Figure 1] cutting molding unit 100 is applied from [Korean] n12 Patent No. 80607 entitled 'Multi-purpose Cutter of a Cutting Blade for Die Cutter' ... incorporated by reference herein. A detailed explanation for the cutting molding unit is therefore omitted below."

n12 The original specification, erroneously referring to "Japan Patent No. 80607" (instead of "Korean Patent No. 80607"), was later amended by a Certificate of Correction. Gilman Decl. Exh. 4 at 127. This discrepancy, already the subject of a summary judgment motion and extensive oral argument, will not be further discussed. See March 28, 2000 Order denying Ken's motion for summary judgment concerning inequitable conduct.

[**63]

SDS again objects that the absence of "means" language precludes application of the means-plus-function statute. SDS Br. at 32. And, it argues, the word "cutter" is "about as structural as one can get." SDS Br. at 32.

Once again, the court must determine whether the "cutter" is "expressed as a means ... for performing a specified function without the recital of structure, material, or acts in support thereof." 35 U.S.C. § 112, P 6. The court first notes the Federal Circuit's comment that [HN43] the mere coincidence that a device takes its name from its function should not convert a claim into the means-plus-function format. Greenberg, 91 F.3d at 1583 (listing "filter," "screwdriver," "suture applicators" and "cutters") (emphasis added). The court next turns to the dictionary relied upon by defendant, the International Association of Diecutting and Diemaking "Glossary of Terms," which stipulates: "CUTTER -- A term used to describe a bench tool used to cut steel rule stock in the manufacture of steel rule dies." SDS Exh. 46. This definition, evidently familiar to those skilled in the diemaking and diecutting art, supports the legal presumption [*64] that the cutter, with no reference to "means," should not be analyzed under Paragraph 6. Like the elongate member, it is structure. See Envirco, 209 F.3d at 1365 ("The term 'baffle' itself is a structural term.").

The court adopts the I.A.D.D.'s definition of the disputed "cutter" in claim 12. That device is not expressed in means-plus-function terms; Ken's contention to that effect is rejected. [*595]

F. Transferring Unit

Finally, Ken calls for means-plus-function treatment of the "transferring unit" referenced in apparatus claim 1 and system claim 12, and for steps-plus-function analysis of the phrase "transferring ribbon stock through a passage formed by a guide ..." in method claim 8. SDS disputes the applicability of Section 112, Paragraph 6 to these phrases.

SDS again relies on the absence of the word "means" in the disputed claims. And, as discussed in the court's indefiniteness analysis, see Section 2.C. above, the patentee argues that the structure girding the "transferring unit" phrase is equivalent to the part named in the specification as "transferring unit 10," sometimes called "transfer roller 10." See, e.g., col. 4, ln. 63; col. 2, lns. [**65] 42-44. Ken responds that, "despite hinting at a possible element of the transferring unit, namely a roller, none of [the patent specification's] language describes the *structure* of the unit itself."

The court turns to Federal Circuit precedent for guidance. That Court has made clear that [HN44] a patentee may disclose structure, and thus avoid means-plus-function treatment, by including in the patent claims language describing structural limitations. For example, the Al-Site Court refused to apply Paragraph 6 to "an eyeglass hanger member for mounting a pair of eyeglasses," where such was described as "made from flat sheet material," "having an opening means formed ... below [its] upper edge," and having "an attaching portion attachable to a portion of said frame of said pair of eyeglasses. ..." 174 F.3d at 1317. Likewise, the Federal Circuit's Rodime decision held that a "positioning means," which included two support arms, a pivot shaft, a positioning arm, a bearing assembly, a stepper motor, and a tensioned steel band, was not subject to means-plus-function analysis. 174 F.3d at 1298.

Alternatively, [HN45] even where structure is not explicitly [**66] described in the claims, the Federal Circuit has approved the use of terms with "a well-known meaning to those of skill in the [relevant art] connotative of structure." Personalized Media Communications LLC v. Int'l Trade Comm'n, 161 F.3d 696 at 704-705. In that case, the Circuit interpreted the limitation "digital detector":

"Detector" is not a generic structural term such as "means," "element," or "device"; nor is it a coined term lacking a clear meaning, such as "widget" or "ram-a-fram." ... Neither the fact that a "detector" is defined in terms of its function, nor the fact that the term "detector" does not connote a precise physical structure in the minds of those of skill in the art detracts from the definiteness of structure. ... Even though the term "detector" does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as "detectors."

Id. The Court concluded that the detector, with or without adjectival qualification, avoided analysis under § 112, P 6, primarily because of a dictionary defining a detector as a "rectifier" or "demodulator". *Id.* Similarly, in Greenberg [**67] v. Ethicon Endo-Surgery, Inc., the

Circuit Court stated of the phrase "detent mechanism": "A close reading of the specification reveals ... that the term is used ... simply as a shorthand way of referring to each of the key structural elements of the invention. Each of those elements is subsequently described in detail, without use of the term 'means,' [in the specification], and each is subsequently claimed, again without the use of the term 'means,' [in the patent claim]." 91 F.3d at 1584.

This court follows Personalized Media and Greenberg to conclude that, though no structure is explicitly recited for the "transferring unit" in the claims themselves, that phrase is mere "shorthand" for referring to the "transfer roller 10" described in the specification. Though "transferring unit" may well be a "generic [*596] structural term," see Personalized Media at 704, a "transfer roller" is a definite structure -- and as already explained, the terms are interchangeable. See Section 2.C., above. Further, the claims themselves state the location, as well as purpose, of the claimed roller, referring to, for example, "a transferring unit for transfer of ribbon [**68] stock through a passage formed by a guide, said passage defining a longitudinal axis (claim 1). See Cole, 102 F.3d at 531 (despite patent drafter's use of phrase "perforation means," finding structure where, in disposable baby diaper designed to break apart along perforated seams, "The claim describes not only the structure that supports the tearing function [i.e., perforations], but also its location (extending from the leg band to the waist band) and extent (extending through the outer impermeable layer).")

This conclusion is enforced by the Patent Examiner's comment concerning a "transfer unit" -- as noted, Examiner Crane apparently recognized such as having a well-known meaning to those skilled in the art. See Personalized Media, 161 F.3d at 704-705. As in Greenberg, the "transfer roller" is described in detail in the specification, and the "transferring unit" is specified in the claims. Each phrase conveys, permissibly, "a variety of structures." Personalized Media, 161 F.3d at 705.

The court finds that the transferring unit connotes structure, not function, to one skilled in the art. Accordingly, means-plus-function treatment [**69] is denied. Instead, the transferring unit is interpreted as a mechanism that moves ribbon stock, from a roll at the beginning of the assembly line, through the claimed machine. See Section 2.C., above.

CONCLUSION

The motion by defendant Ken Specialties for summary judgment that the '919 patent is invalid for indefiniteness and failure to satisfy the written

description requirement is denied. The patent is constructed as set forth in this opinion.

/s/

William H. Walls, U.S.D.J.

8/3/00

Dated

ORDER

Walls, United States District Judge

Defendant Ken Specialties moves for summary judgment that the '919 patent is invalid for indefiniteness, 35 U.S.C. § 112, P 2, and for failure to satisfy the written description requirement, 35 U.S.C. § 112, P 1. Further, each party requests that the court make a Markman ruling to construct the '919 patent claims in its

favor. The court heard oral argument July 21 and 31, 2000. For the reasons stated in the accompanying opinion,

It is this 3rd day of August, 2000:

ORDERED that:

- 1) The motion by defendant Ken Specialties for summary judgment that the '919 patent [**70] is invalid for indefiniteness, and for failure to satisfy the written description requirement is denied.
- 2) The '919 patent is construed as set forth in the accompanying opinion.

/s/

William H. Walls, U.S.D.J.

[Translation from Japanese]

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(54) Title of the Invention: Workpiece Bending Device
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Specification

1. Title of the Invention Workpiece Bending Device

2. Claims

(1) A workpiece bending device comprising a vertical feeding tool able to move a sheet-like workpiece horizontally and vertically at each bending pitch, a horizontal feeding tool able to grasp and release the workpiece and move the workpiece horizontally with the vertical feeding tool, a pair of core shafts arranged statically near the horizontal feeding tool downstream in the traveling direction of the workpiece so the opposing surface of the workpiece is brought close to the core shafts by the horizontal movement of the workpiece, and a bending tool having a metal bending fixture starting near the opposing surface of the workpiece interposed between the core shafts and rotating the workpiece 180° circumferentially downstream from the core shafts around the core shafts so as to bend the workpiece in a U shape, and wherein the metal bending fixture is able to rotate at a right angle to the rotational surface at a position allowing the tip of the metal bending fixture to remain above the edge of the workpiece and allowing the workpiece to move horizontally.

3. Detailed Description of the Invention

(Industrial Field of Application)

The present invention relates to a workpiece bending device having two core shafts and able to bend a long workpiece precisely and continuously.

(Prior Art)

As shown in FIG 14 and FIG 15, a heat-radiating device such as a radiator can be formed by bending a metal sheet into a U shape. Here, the main unit c consists of one curved section a and two straight sections b. Slats f are passed through the straight sections b of the main unit c.

When the main unit c is formed, as shown in FIG 16 through FIG 18, a device is used with a first core shaft d and second core shaft e arranged so the sheet w passes through interval g. Here, one of the core shafts d (e) remains stationary while the other core shaft e (d) rotates around the center of the stationary core shaft. In this device, the second core shaft f moves around the first core shaft d when the sheet w is bent downward as shown in FIG 17 and the first core shaft d moves around the second core shaft f when the sheet w is bent upward as shown in FIG 18. By moving the first or second core shaft d, e, the sheet w can be bent continuously.

(Problem Solved by the Invention)

Even though one of the core shafts d (e) is stationary in this device, the rattling of the bearings and other factors causes the stationary position to be imprecise. Consequently, the dimensions of the curved section a in the main unit c vary, both ends of the curved section a are uneven, and the interval between the straight sections b, b is not consistently the same. As a result, it is difficult to insert the slats f in the next step. Both product quality and productivity decline.

The purpose of the present invention is to precisely and continuously bend a workpiece in a U shape and solve the problem associated with the prior art by providing a workpiece bending

device having a pair of core shafts and a bending tool with a metal bending fixture able to rotate around each core shaft and move perpendicular to the rotational surface.

(Means of Solving the Problem)

The following is an explanation with reference to the drawings of a working example of the present invention able to achieve this purpose and solve the problem.

As shown in FIG 1 through FIG 13, the present invention is a workpiece bending device 1 comprising a vertical feeding tool 2 able to move a sheet-like workpiece W horizontally and vertically at each bending pitch, a horizontal feeding tool 3 able to grasp and release the workpiece W and move the workpiece horizontally with the vertical feeding tool 2, a pair of core shafts 4, 4 arranged statically near the horizontal feeding tool 3 downstream in the traveling direction of the workpiece W so the opposing surface of the workpiece W is brought close to the core shafts by the horizontal movement of the workpiece W, and a bending tool 6 having a metal bending fixture 5 starting near the opposing surface of the workpiece W interposed between the core shafts 4, 4 and rotating the workpiece 180° circumferentially around the core shafts 4, 4 downstream from the core shafts 4, 4 so as to bend the workpiece W in a U shape, and wherein the metal bending fixture 5 is able to rotate at a right angle to the rotational surface at a position allowing the tip of the metal bending fixture 5 to remain above the edge WA of the workpiece W and allowing the workpiece W to move horizontally.

As shown in FIG 14 and FIG 15, the workpiece W is a sheet that is narrow and rectangular in cross section. A plurality of through-holes is formed on the inside. The workpiece bending device 1 of the present invention forms the workpiece W into a bent main unit c by repeatedly

bending the sheet in a U shape as shown in FIG 14. A plurality of slats f is then passed between the straight sections b, b to form a heat-radiating device such as the radiator in FIG 15.

In this working example, the workpiece bending device 1 inserts the workpiece W vertically and forms the workpiece W into a U shape horizontally.

The vertical feeding tool 2, the horizontal feeding tool 3 and the bending tool 5 are arranged on a base 11 forming the exterior of the workpiece bending device 1.

The base 11 consists of a box-shaped main unit 21 and an upper section 22 above the main unit 21.

The main unit 21 has a bottom plate, a front plate, a back plate and side plates 23, 24 between the front plate and the back plate. Closed grooves 25 are formed in the center and somewhat in front of the side plates 23, 24.

The upper plate 26 is fitted in the grooves 25 on the upper edge of the side plates 23, 24 first, and then upper plate 27 is inserted in front of the grooves 25. The upper plate 27 has a protrusion 27A extending above the groove 25. The upper section 21 (sic) is set above the upper plate 26 and secured to two standing wall plates 29, 29. The front end of the wall plates 29 extend above the grooves 25. As a result, an open indentation 30 including the grooves 25 is formed in the main unit 2.

A flat plate 31 is then inserted between the side walls 29, 29 above the indentation 30.

Two upper bearing units 32, 32 are attached vertically in the direction perpendicular to the traveling direction of the workpiece 4, and two lower bearing units 33, 33 are attached to the upper plate 27 facing the upper bearing units 32, 31 via a support member 35 fixed beneath the upper plate 27. The support member 35 is fixed to the bottom surface of the upper plate 27 and a long, rectangular slot 36 is formed in the upper plate 27 to connect and release the bearings 33, 33.

The bending tool 6 is supported by the upper and lower bearings 32, 33. It is equipped with two bending units 13, 13 passing through the indentation 30 and an operating unit 14 for operating the bending units 13.

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In the case of the bending units 13, the core shaft 4 and the metal bending tool 5 are interposed between an upper metal receiving tool 41 inserted so as to rotate freely in the upper bearing 32 and a lower metal receiving tool 42 supported so as to rotate freely in the lower bearing 33.

In the case of the core shafts 4, a through-hole 44 is opened axially along the lower metal receiving tool 42 and a hole 45 is opened axially along the bottom surface of the upper metal receiving tool 41. A pole 46 is passed through these holes, and a roller 47 is placed securely on the outside of the pole 46 between the upper metal receiving tool 41 and the lower metal receiving tool 42.

A plug is placed in the bottom of the through-hole 44 to keep the pole 46 from dropping.

The metal bending tool 5 is an inclined rectangular pole. It rises above the bottom metal receiving tool 42, passes through the inside of the upper metal receiving tool 41, and the top end extends from the top surface of the metal receiving tool 41. The upper metal receiving tool

41 has a vertical hole 49 equipped with a cross section nearly equal to the horizontal cross section of the metal bending tool 5 at an interval nearly equal to the thickness of the core shaft 4 and the workpiece W. The lower metal receiving tool 42 has a groove 50 that engages the bottom end of the metal bending tool 5 at the position opposite the vertical hole 49.

The upper metal receiving tools 41 are equipped with teeth units 51 extending from the engaging units for the bearings 32. In this working example, the teeth units 51, 51 mesh with each other between opposing metal receiving tools 41, 41. The lower metal receiving tools 41 are equipped with teeth units 52 in which the teeth have the same pitch as the other teeth units 51. A strong cylinder 56 equipped with a rod 55 that moves downward in a tube 54 is attached above the upper metal receiving tool 41 so that the center line of the rod 55 is aligned with the center line of the metal receiving tool 41. The upper end of the metal bending tool 5 is fixed and connected to the bottom end of the rod 55. By extending the rod 55, the metal bending tool 5 travels between the upper and lower metal receiving tools 41, 42. By withdrawing the rod 55, the bottom end passes over the edge WA of the workpiece W and rises near the bottom surface of the upper metal receiving unit 41.

The operating unit 14 is fixed to the wall plate 29 by means of a support plate, the tip of the rod extending from the cylinder 61 is attached to a C-shaped frame 62 equipped with upper and lower protrusions, and the protrusions extend horizontally and attach to the ends of a pair of racks 64, 65 that engage the teeth units 51, 52 on the upper and lower metal receiving tools 41, 42. By extending the rod, the operating unit 14 can be advanced at the same time as the pair of racks 64, 65, and the two teeth units 51, 52 can be rotated simultaneously in the same direction.

In this working example, the operating unit 14 can be situated on the other wall 29 or two operating units 14, 14 can be arranged to advance simultaneously in the same direction.

A pair of opposing bending units 13, 13 are rotated in opposite directions by the reciprocation of the operating unit 14.

In this working example, teeth units 51, 51 and teeth units 52, 52 engage each other to improve the rotational precision of the bend units 13, 13.

The rotational range of the bending tool 6 is set so the metal bending tools 5 start from an origin point inside facing the core shafts 4, 4, and rotate 180° downstream from the core shafts 4, 4. Therefore, the metal bending tools 5 start from an origin point inside facing the core shafts 4, 4, and rotate 180° downstream from the core shafts 4, 4. In other words, the metal bending tools 5 rotate in a direction perpendicular to the rotational surface.

Because the core shafts 4 are attached along the rotational center line of the upper and lower metal receiving tools 41, 42, the core shafts 4 do not move and remain stationary.

The moving frame 16 is attached in the indentation 30. The moving frame 16, as shown in FIG 3, has guide plates 72, 72 situated below in which guide rails 71, 71 have been inserted extending outward from the side plates 23, 24. Side walls 74, 75 rise from both ends of the bottom plate 73 beneath the upper plate 27, and a top plate 76 is placed on the top ends of the side walls 74, 75 to form the frame assembly. In the moving frame 16, a cylinder 77 equipped with a rod is attached to one of the side plates 74, and the tip of the rod is connected to a metal attachment tool 79 attached to the upper plate 27.

Horizontal slots 80, 81 are formed in the bottom plate 73 and the top plate 76, respectively, for the bending unit 13 to pass through.

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In the case of the moving frame 16, the extension of the rod in the cylinder 75 causes the bending unit 13 on the bending tool 6 to be able to reciprocate horizontally in the indentation 30 or perpendicular to the direction in which the workpiece is traveling.

A base plate 85 formed from part of the upper plate 27 and equipped with a through-hole 84 through which the bending unit 13 passes is attached to the slot 36 in the upper plate 27 via a support member on the bottom plate 73 of the moving frame 16.

An attachment plate 86 is situated on the top plate 76. It is situated horizontal to the top plate 76 and connected to the top plate 76 via support members on both sides. The attachment plate 86 is equipped with a through-hole 87 through which the bending unit 13 passes.

In this working example, the horizontal feeding tool 3 is situated upstream from the bending tool 6 and beneath the attachment plate 86. The horizontal feeding tool 3 has a stationary member 92 and a moving member 93 arranged on both sides in a vertical groove 91 arranged at intervals equal to the thickness of the workpiece W in the traveling direction of the workpiece W.

As shown in FIG 7, the upper end of the stationary member 92 is attached to the attachment plate 86 and the bottom end of the stationary member 92 is attached to the base plate 85. The tip of the stationary member 92 extends near the bending unit 13 of the metal bending tool 6.

The moving member 93 has a moving plate 96 able to advance and retreat along a vertical groove 91 serving as a guide groove in the attachment plate 86 and the base plate 85, and an operating plate 99 attached to a rod facing downward in a cylinder 97 arranged along the back of the moving plate 96 and fixed to the attachment plate 86. The moving plate 96 and the

operating plate 99 face each other and have a contact surface inclined vertically. The extension and retreat of the rod in the cylinder 97 move the operating plate 99 up and down, and the up and down movement causes the horizontal feeding tool 3 to grip and release the workpiece W interposed in the vertical groove 91.

The reciprocal movement of the moving frame 16 causes the horizontal feeding tool 5 to move horizontally between the opposing core shafts 4, 4.

A height-adjustable guide plate 100 is situated on the attachment plate 86 upstream from the horizontal feeding tool 3 to guide the upper edge WA of the workpiece W.

The vertical feeding tool 2 is equipped with a gripping unit 101 to grip the workpiece W and a moving unit 102 to move the gripping unit 101 vertically.

The moving unit 102 has a base unit 106 engaged on the outside to a guide rod 105 connected front and back between a connecting plate 103 in front and a connecting plate 104 in back arranged front and back to the side plates 23, 24 in the base 11. The base unit 106 is attached to the connecting plate 104 in back and connected to the rod in the cylinder 107. A C-shaped frame 110 is fixed to the base unit 106 with a pair of standing tabs 109, 109 rising from the edge of both sides. A pair of cylinders 111, 111 are attached to the standing tabs 109, 109 so that the angular rods are facing each other.

The tip of the gripping unit 101 faces forward and the bases of a pair of protruding gripping plates 112, 112 are attached to the rods in the pair of cylinders 111, 111. The pressure applied by the two cylinders 111, 111 allows the gripping unit 101 to grip the workpiece W, and the

movement of the rods in the two cylinders 111, 111 in the same direction allows the gripping unit 102 to move horizontally.

A screw shaft 115 connected to the output shaft of a motor 114 fixed to the rear connecting plate 104 is arranged pivotally between the front and rear connecting plates 103, 104. The screw shaft 115 is threaded so as to engage a position determining tool 117 equipped with a surface making contact with the rear surface of the base unit 106. The rotation of the screw shaft 115 allows the position detecting tool 117 to advance and retreat in a screw-like manner and determine the rear position of the vertical feeding tool 2. The forward position of the vertical feeding tool 2 is limited by contact between the front surface of the base unit and the connecting plate 103 in the front.

By gripping the workpiece W, the vertical feeding tool 2 allows the workpiece W to be advanced accurately by a predetermined length. When the workpiece W is released, the vertical feeding tool 2 returns to its original position.

The operation of the moving frame 16 moves the horizontal feeding tool 3 horizontally. By positioning the horizontal feeding tool 3 so the workpiece W is near the opposing surfaces of the core shafts 4, 4, and by rotating the metal bending tool 5 of the bending tool 6 180° around one of the core shafts 4, the workpiece W can be bent into a U shape along the core shaft 4.

By setting the amount of vertical feeding to match the bending pitch of the workpiece W, the vertical feeding tool 2 is able to feed the workpiece W using the amount of pitch. By positioning the horizontal feeding tool 3 so the workpiece W is near the opposing surfaces of the core shafts 4, 4, and by rotating the metal bending tool 5 around the other core shaft 4, the workpiece W can be bent into a U shape along the core shaft 4 in the reverse direction.

The result of moving the workpiece W between a pair of core shafts 4, 4, and using the metal bending tool 5 to bend the workpiece W in both directions is a main unit c with serpentine curves going in opposite directions at each bending pitch as shown in FIG 14 (sic).

In this working example, an engaging tool 120 is attached to the base 11 downstream from the bending tool 6 in the traveling direction of the workpiece W. The engaging tool 120 has a stopper 119 that is able to move in the traveling direction of the workpiece W. It extends from the hole 75 in the upper plate 26 above the upper plate 26. The stopper 119 determines the initial bending position of the workpiece W.

(Operation)

As shown in FIG 8, the horizontal feeding tool 3 and the gripping unit 101 on the vertical feeding tool 2 are moved horizontally and positioned with respect to one of the core shafts 4. Pressure is applied by a pair of cylinders 111, 111 and the gripping unit 101 grips the workpiece W. The operation of cylinder 107 advances the workpiece W along the vertical groove 91 in the horizontal feeding tool 3 and between the core shaft 4 and the metal bending tool 5 until the front edge of the workpiece W comes into contact with the stopper 119 on the engaging tool 120 and is stopped.

Next, as shown in FIG 9, the workpiece W is gripped by the horizontal feeding tool 3. The operation of the cylinders 61, 61 rotates the teeth units 51, 52 engaged with the racks 64, 65, and rotates the metal bending tool 5 180° downstream from the core shaft 4 starting at a point near the opposing surface of the core shaft 4. As a result, the workpiece W is bent in a U shape. In the meantime, the vertical feeding tool 2 returns to the rear position.

As shown in FIG 10, the stopper 119 is lowered, the workpiece W is released from the horizontal feeding tool 3, and the vertical feeding tool 2 grips the workpiece W and advances it one bending pitch.

Next, the operation of the cylinder 56 reverses the rotation of the metal bending tool 5 so the tip rises above the edge of the workpiece W and the metal bending tool 5 returns to its original position. The workpiece W is gripped by the vertical feeding tool 2 and the horizontal feeding tool 3. As shown in FIG 11, the simultaneous movement of the vertical feeding tool 2 and the horizontal feeding tool 3 moves the workpiece W to a position near the opposing surface of the other core shaft 4.

As shown in FIG 12, the metal bending tool 5 is rotated and the workpiece W is bent in the opposite direction. After the workpiece W has been bent, the tip of the metal bending tool 5 is raised above the edge of the workpiece W, and the workpiece W is advanced by the vertical feeding tool 2. As shown in FIG 13, the workpiece W is then gripped by the vertical feeding tool 2 and the horizontal feeding tool 3 and returned to a position near the other core shaft 4.

By repeating this operation, a workpiece W can be formed with a main unit c having serpentine curves going in opposite directions at each bending pitch.

Because the workpiece W is gripped by the horizontal feeding tool 3 and bent around a stationary core shaft, the bent section a is precise and the opposing straight sections b, b are even. Because the workpiece W is advanced vertically with great precision by the vertical feeding tool 2, both ends of the curved sections are regular and a precise curve can be obtained.

(Effect of the Invention)

As explained above, the workpiece bending device of the present invention is equipped with a vertical feeding tool, a horizontal feeding tool and a flexion tool. Here, the workpiece can be bent precisely along the core shaft because the horizontal feeding tool can grip the workpiece and the core shaft rests on the flexion tool. The bending position of the workpiece is accurate because the vertical feeding tool feeds the workpiece vertically at each bending pitch. Because the vertical feeding tool and the horizontal feeding tool can move horizontally and move the tip of the metal bending fixture on the bending tool over the edge of the workpiece, the workpiece can be bent forward or backward around a pair of core shafts. As a result, a workpiece can be bent continuously in a U-shape. Therefore, both ends of a workpiece can be set along a straight line and bent continuously with very little discrepancy in the bending intervals using the workpiece bending device of the present invention. The resulting workpiece is bent more precisely than workpieces bent using a prior art device and the quality is more consistent. Also, the finishing process is easier, productivity is higher, and raw material costs are lower.

In the workpiece bending device of the present invention, the frame is arranged horizontally so the workpiece W is bent in a U-shape perpendicularly, and a pair of core shafts are arranged obliquely to each other in the direction of the traveling frame. As a result, a continuously bent workpiece can be formed in which the bending position changes obliquely. Other variations of the workpiece bending device of the present invention are possible.

4. Brief Explanation of the Drawings

FIG 1 is a planar view of a working example of the present invention. FIG 2 is a perspective view of the same. FIG 3 is a lateral view from line A-A. FIG 4 is a cross-sectional view from line B-B. FIG 5 is a cross-sectional view from line C-C. FIG 6 is an exploded perspective view of the bending tool. FIG 7 is a perspective view of the horizontal feeding tool. FIG 8 through FIG 13 are drawings used to explain the operation of the device. FIG 14 is a planar view of a workpiece. FIG 15 is a partially enlarged perspective view of the same. FIG 16 through FIG 17 are drawings used to explain the operation of a prior art device.

2 ... vertical feeding tool

3 ... horizontal feeding tool

4 ... core shaft

5 ... metal bending fixture

6 ... bending tool

W ... workpiece

Applicant

Gakujo NAKAMURA

Agent

Tadashi NAEMURA, Patent Attorney

FIG 1

FIG 2

FIG 3

FIG 4

FIG 5

FIG 6

FIG 7

FIG 8

FIG 9

FIG 10

FIG 11

FIG 12

FIG 13

FIG 14

FIG 15

FIG 16

FIG 17

FIG 18

TRANSLATION ACES

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AFFIDAVIT OF ACCURACY

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)
) ss.:
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I, the undersigned, being duly sworn, depose and state:

I am qualified to translate from the Japanese language into the English language by virtue of being thoroughly conversant with these languages and, furthermore, having translated professionally from Japanese into English for more than 10 years;

I have carefully made the translation appearing on the attached and read it after it was completed; and said translation is an accurate, true and complete rendition into English from the original Japanese-language text, and nothing has been added thereto or omitted therefrom, to the best of my knowledge and belief.

TRANSLATION ACES, INC.

Subscribed and sworn to before me

this 8th day of November, 2000

SERGE NEDELTSCHEFF
Notary Public, State of New York
No. 01NE5033945
Qualified in Nassau County

両端が直線上に整一されしかも曲げ間隔にはらつきの少ない連続折曲げ体を形成でき、従来の装置を用いて作られたものに比べ精度が向上し、かつ品質が安定するとともに、後工程における加工が容易となり作業能率を高め、原価低減にも役立つ。

なお本発明のワーク曲げ装置は、枠材を水平方向に配しワークWを垂直平面でU字に折曲げるよう設することもでき、又一对の芯軸を枠材の搬送方向に対して斜めに交互する向きに対設することによって折曲げ位置が斜めに移動する連続折曲げ体を形成することもでき、種々な態様のものに変形できる。

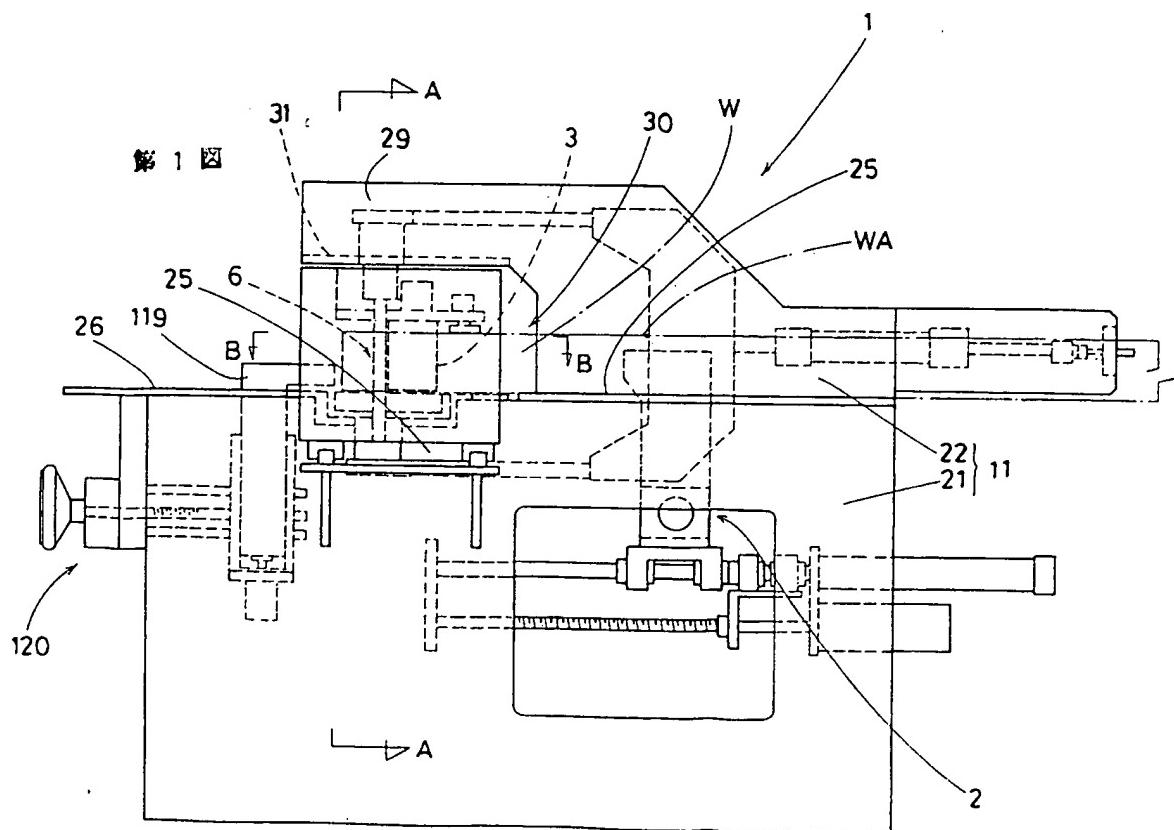
4. 図面の簡単な説明

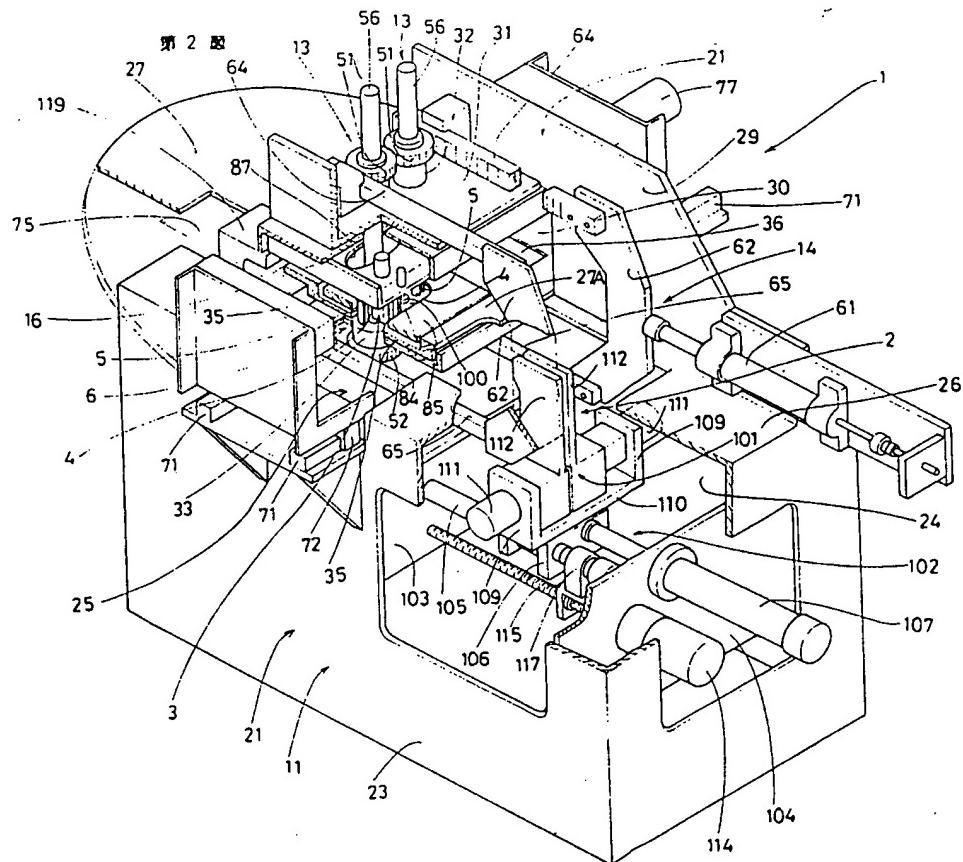
第1図は本発明の一実施例を示す平面図、第2図はその斜視図、第3図はそのA-A線端面図、第4図はそのB-B線断面、第5図はそのC-C線断面図、第6図は屈曲具の要部を示す分解斜視図、第7図は横送り具を示す斜視図、第8~13図は作用を示す線図、第14図はワークを例示する平面図、第15図はその部分拡大斜視図、第1

6~17図は従来品の作用を示す線図である。

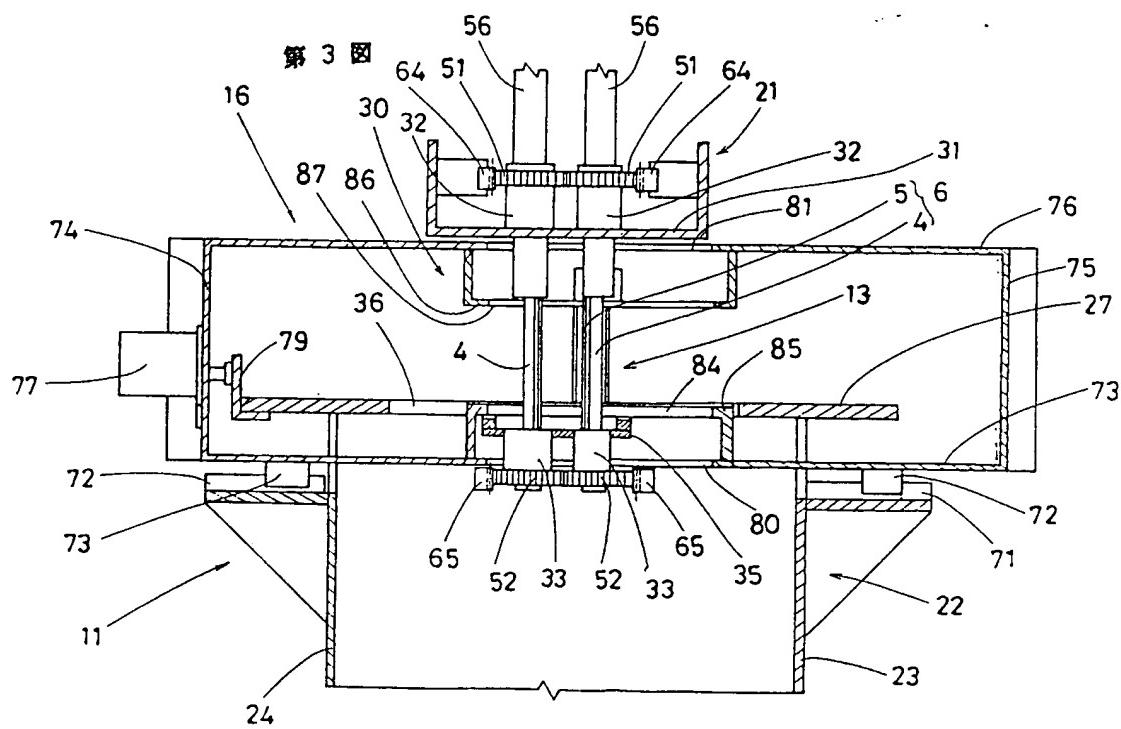
2…縦送り具、3…横送り具、4…芯軸、
5…折曲げ金具、6…屈曲具、W…ワーク。

特許出願人 中 村 岳 城
代理人 弁理士 苗 村 正

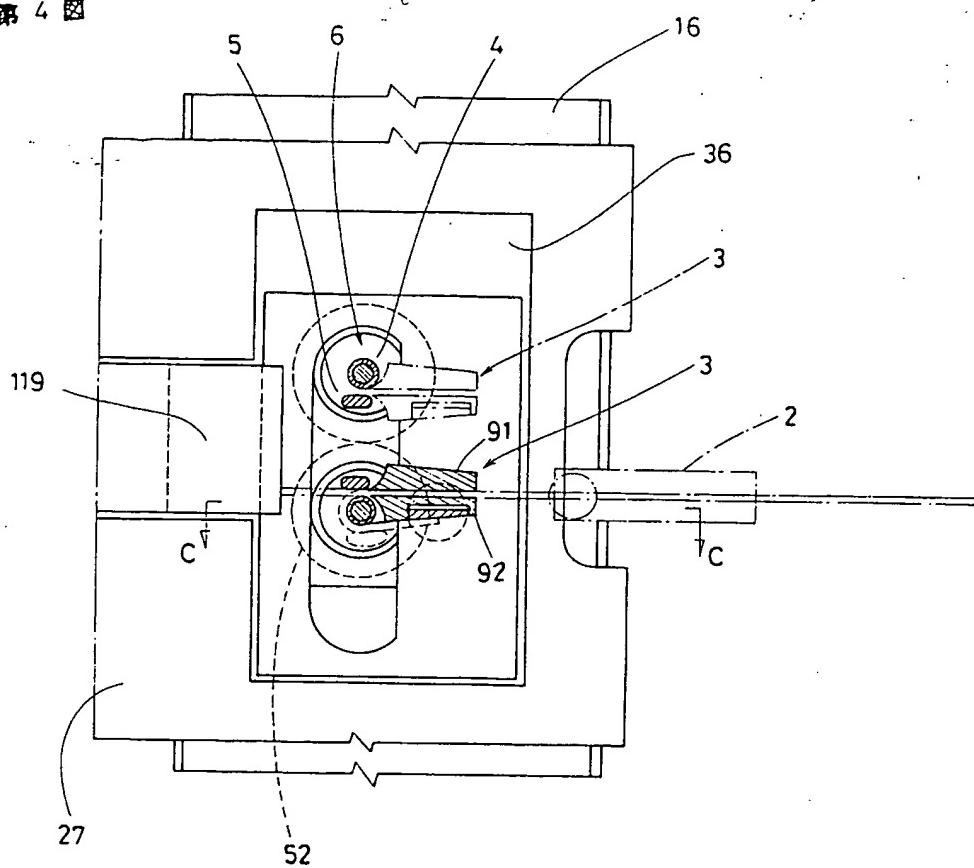




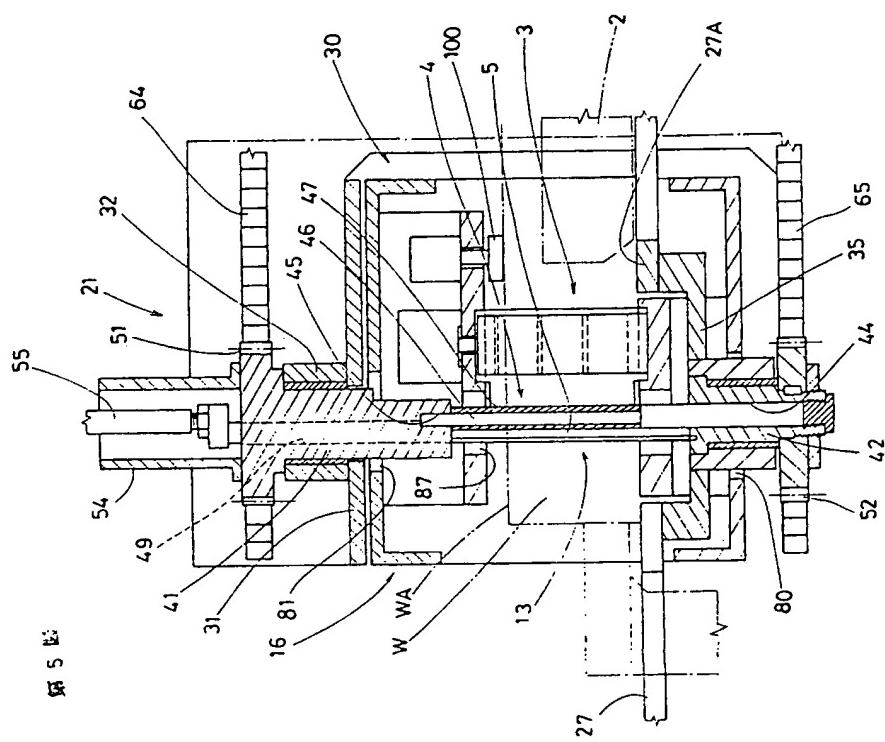
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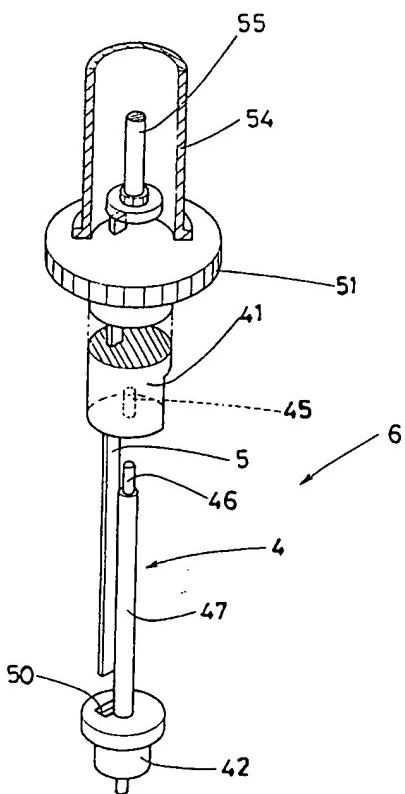
第4図



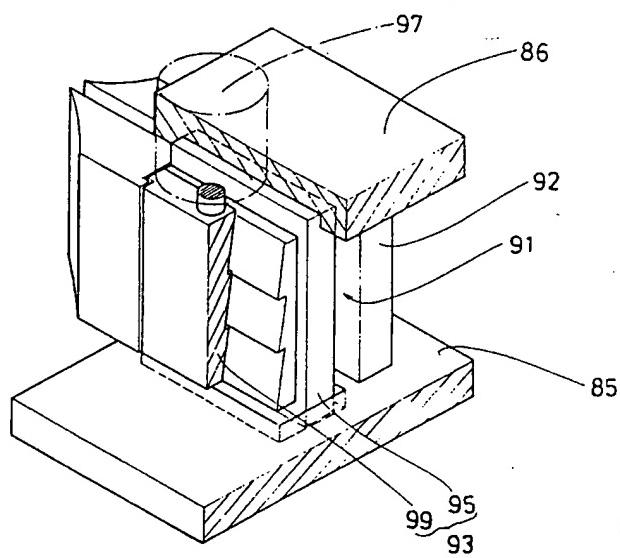
第5図



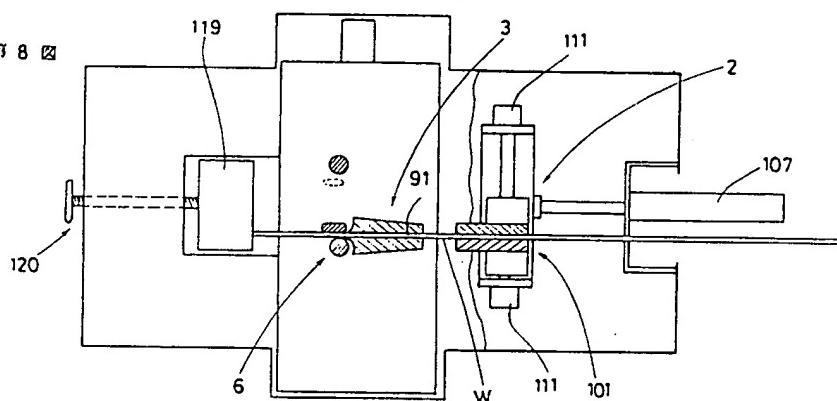
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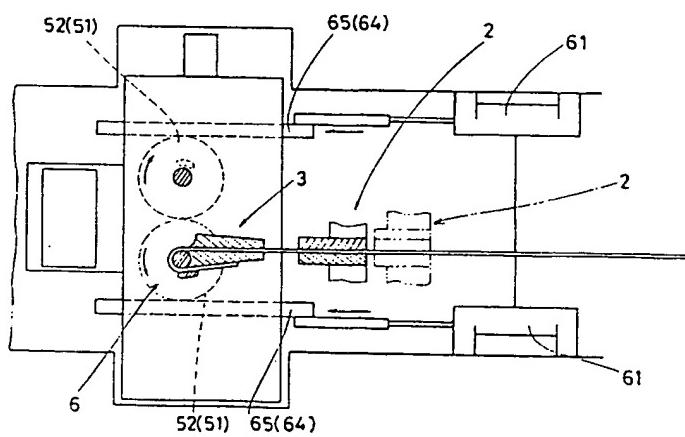
第7図



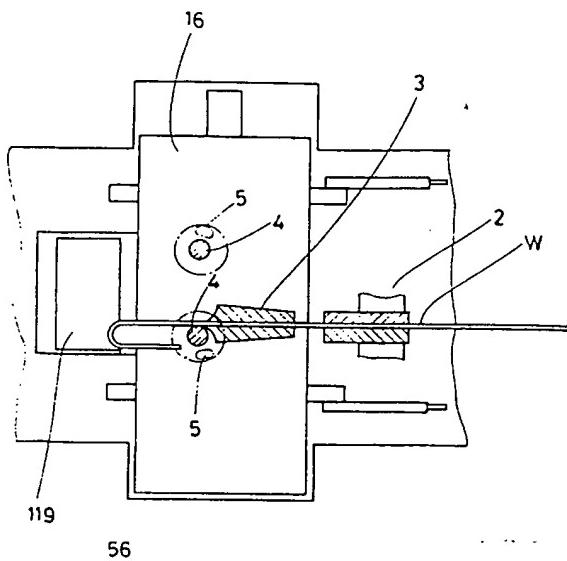
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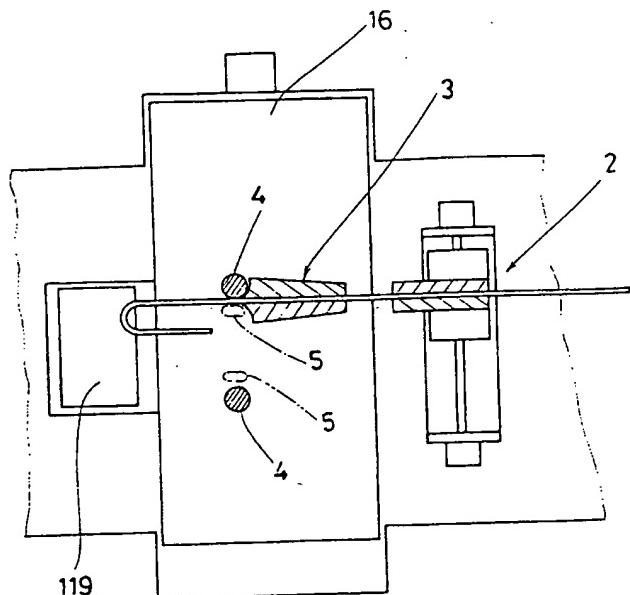
第9図



第10図

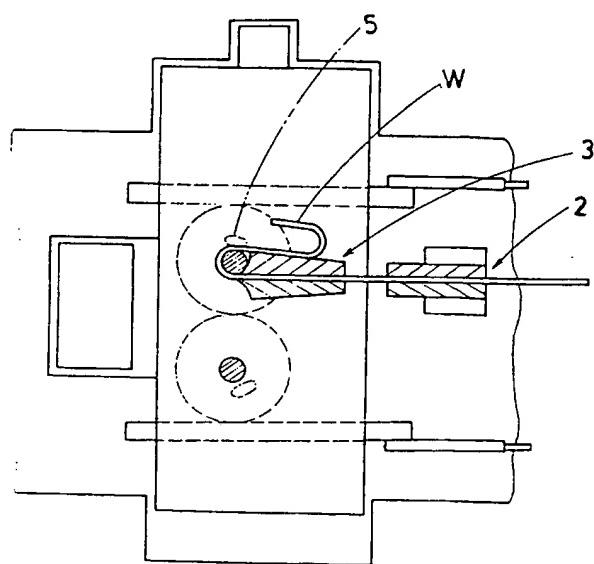


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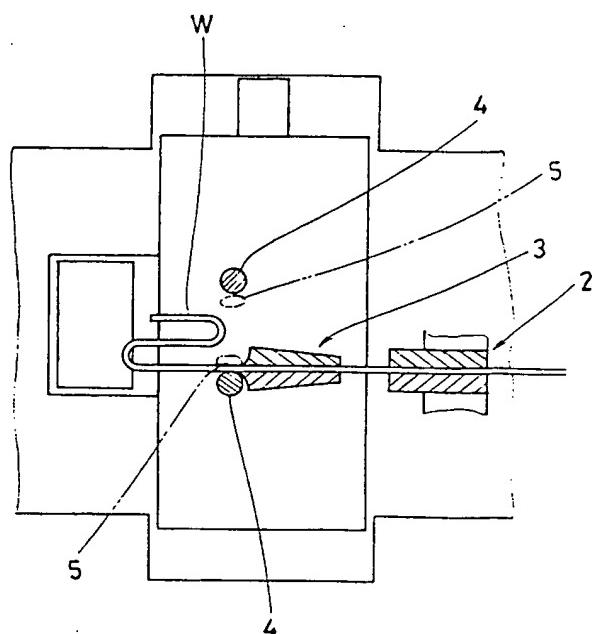
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第12図



56

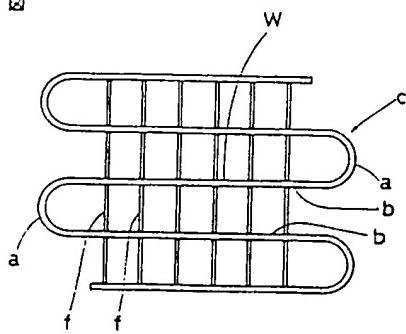
第13図



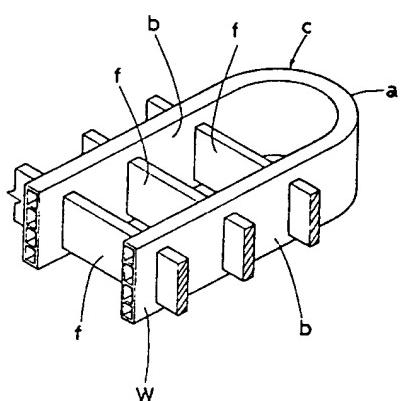
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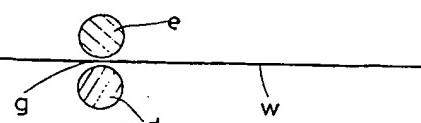
第15図



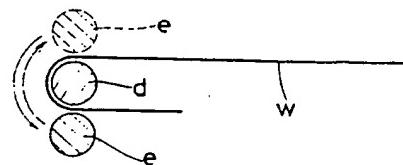
第14図



第16図



第17図



第18図

